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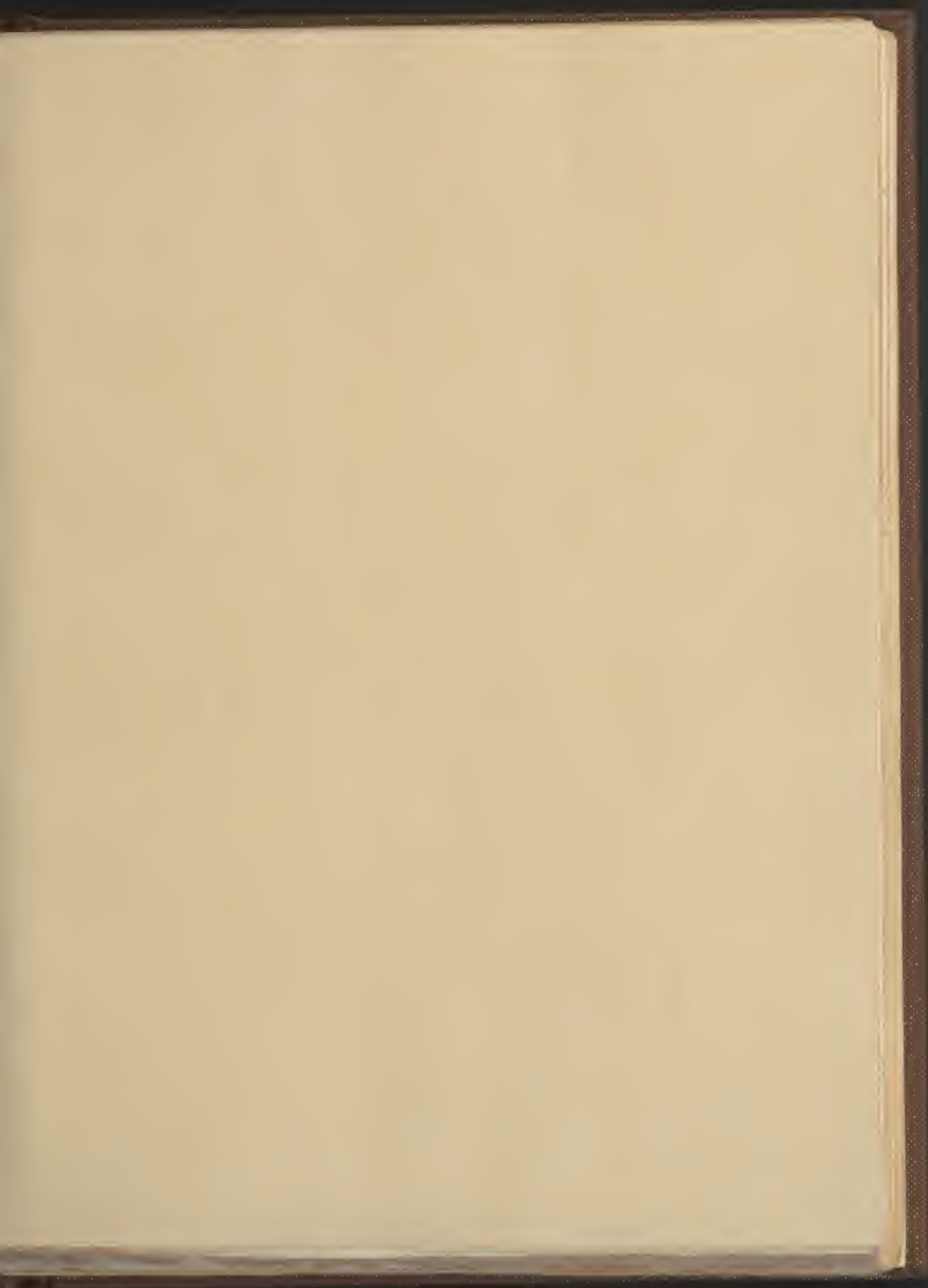
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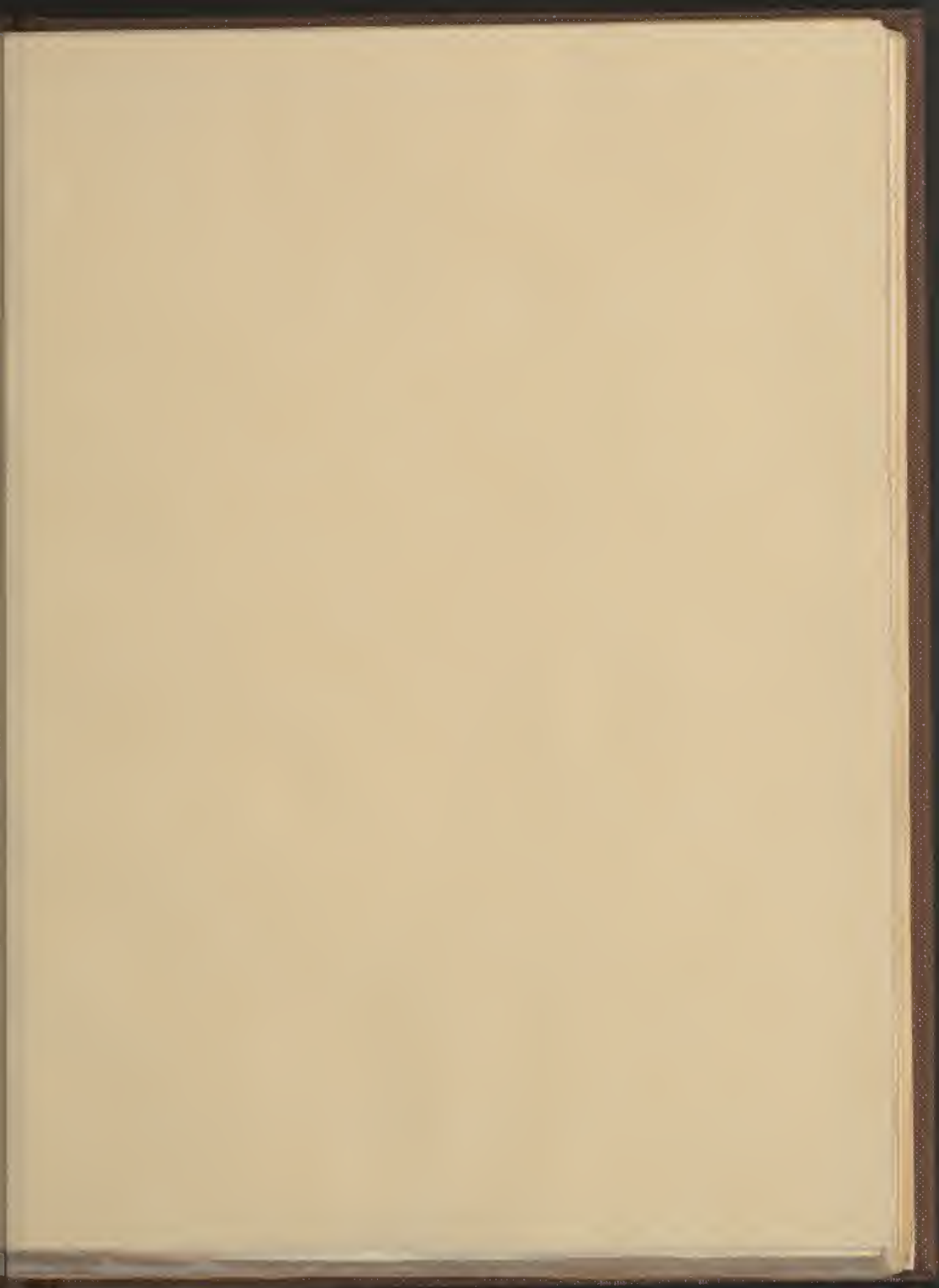
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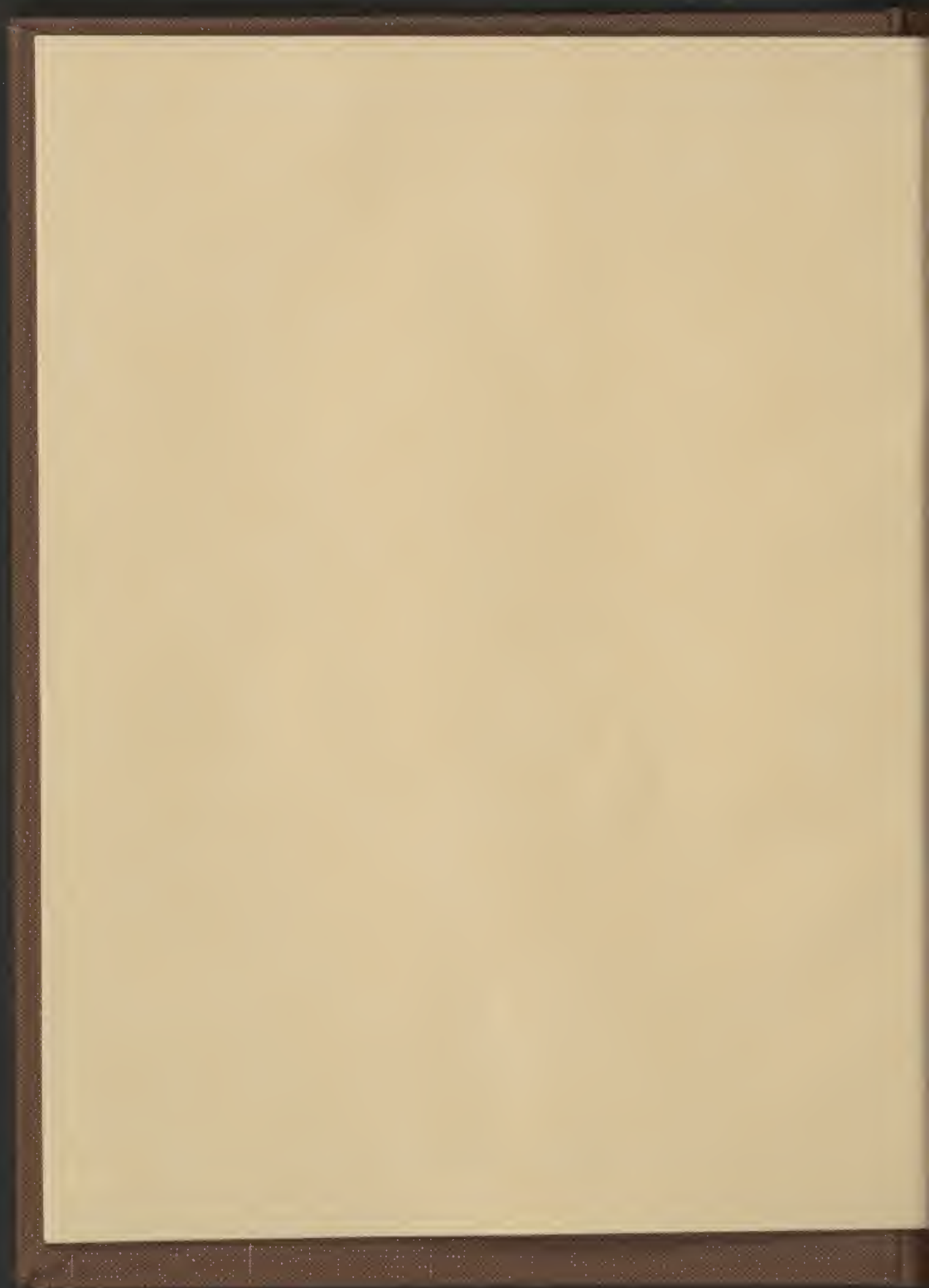
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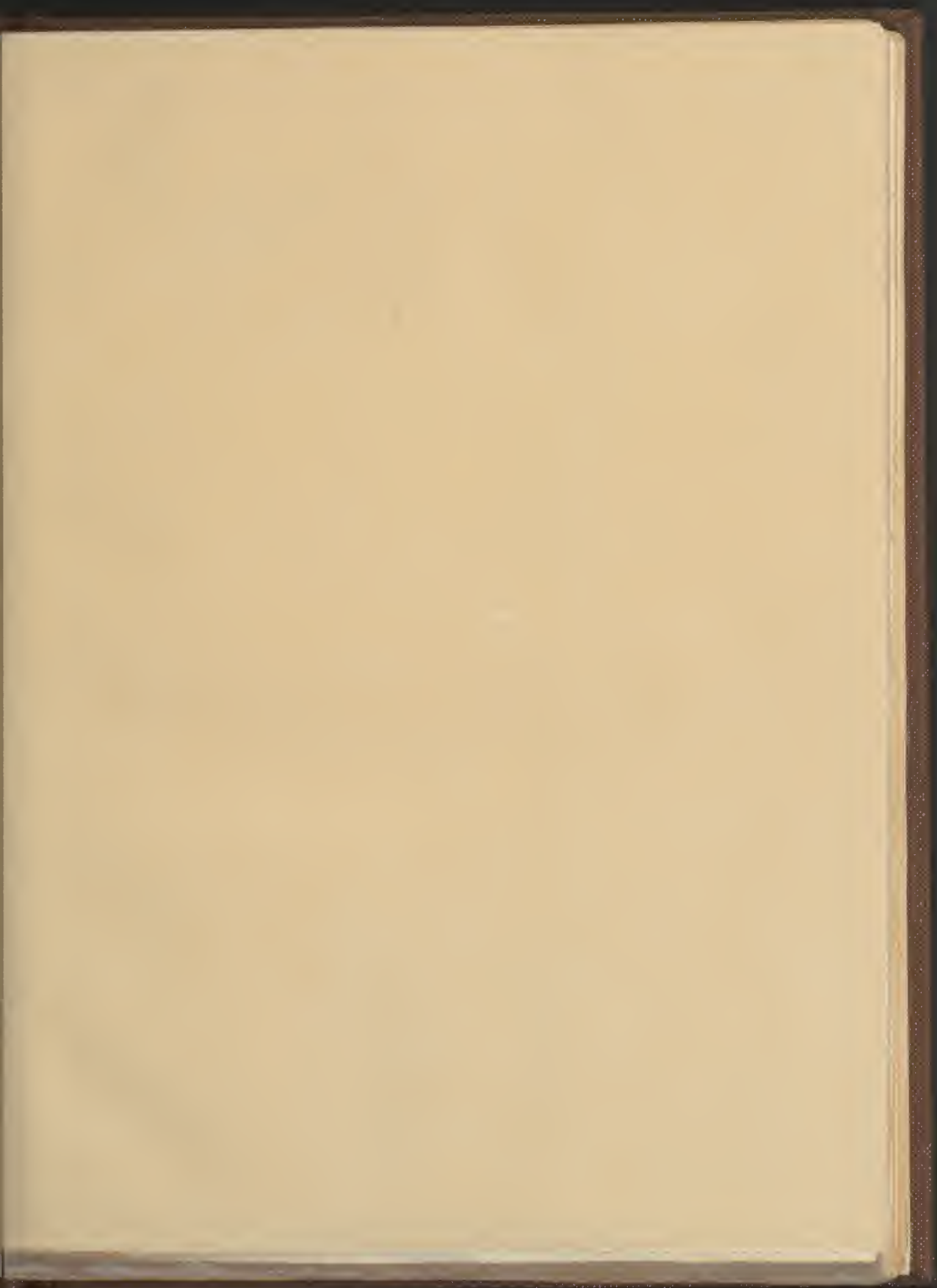


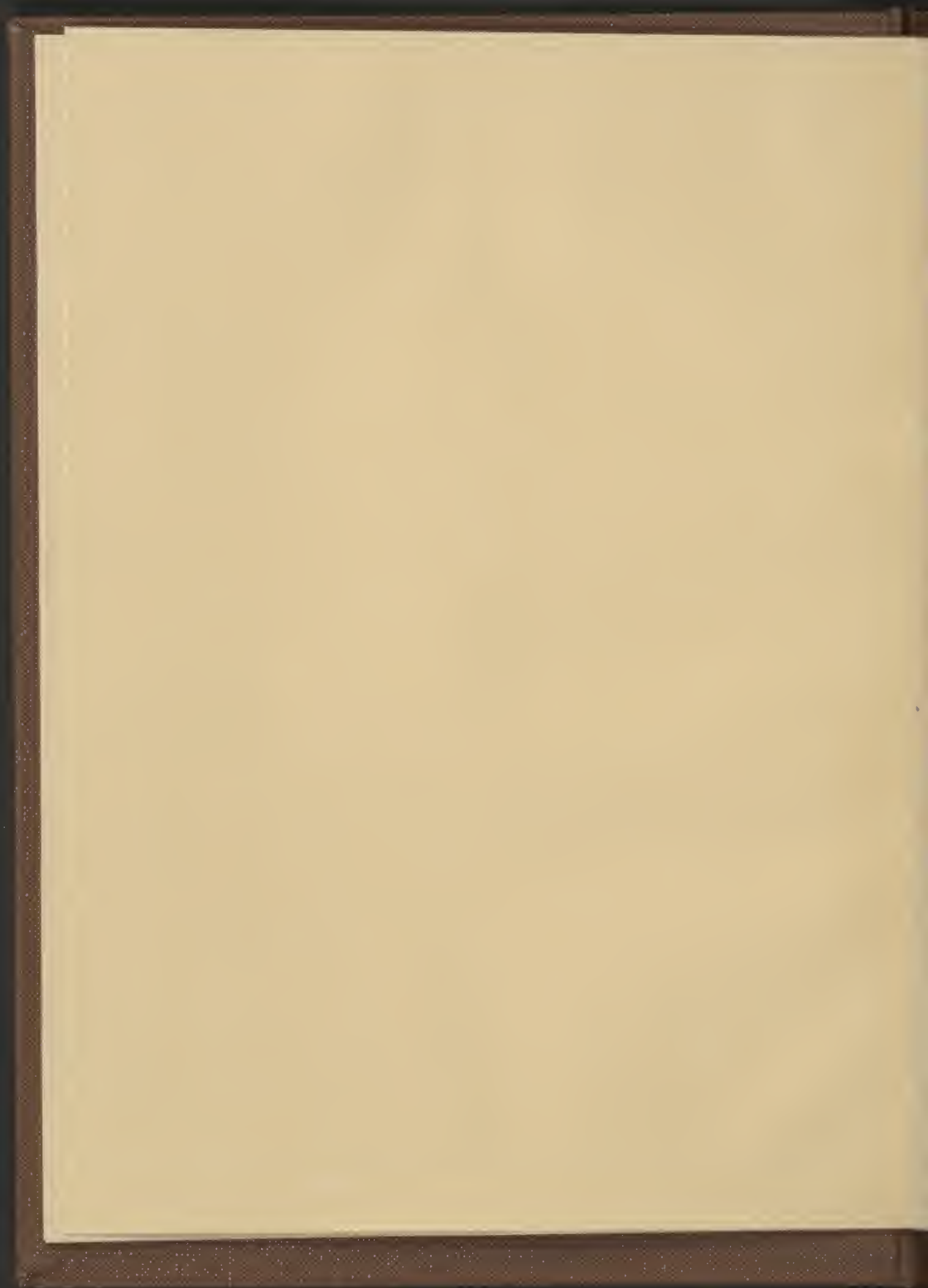












(6)

*Proterea
medea*

Depletio Sanguinis

Is an important refrigerant process & should be treated of amongst therapeutic agent... It is an operation directly and exclusively refrigerant in its effects. The blood itself is ~~of the~~ and is the medium and support of the vitality of every part of the system.

The first effect of v. s. is to diminish vital power generally and strength of action in every part. It constitutes the most powerful and direct method of reducing the vital energies. When carried to excess its effects are most difficult to be remedied.

The precise quantity to be taken depends on the degree of vital power. the nature of the disease the prevailing diathesis and the vigour of the constitution.

Yet in no process is the practice so empirical. Prof T. knows of no disease so severe as to require medication. in v. s. has not been recommended as the most appropriate remedy.

6 When really indicated it is indispensable - when not indicated it is intolably prejudicial

Divided into two kinds - General & local - the former from an artery or large vein - the latter from the capillaries

Some however consider G. S. from a large vein in a part near a local affection, as from the ext. jugular in Cephalitis, as a local bleeding, & therefore more efficacious. They think V. S. from the arm, in like manner more efficacious than from the jugular or foot - and in all the phlogosides they bleed ~~ex~~ from a large vessel as near as possible to the seat of the disease. This they consider as effecting a topical depletion of the diseased part. Now it is well known to every anatomist that there is no direct communication between the viscera of the thorax abdomen and cranium, and the parts forming the varieties of those cavities. ^{therefore} there is no ground for calling such

processes topical bleedings. The notion of
a remnant of prejudice existing before
the discovery of the circulation of the
blood & the distinction is of no more
importance in practice than the old
man in the almanac.

Some limit the term topical
bleeding to an evacuation from the capil-
laries of the diseased part. This evacuation
must be prejudicial in atonic passive
diseases where there is a gangrenous tendency
especially if performed with scarification
and cups.

An English author remarks
correctly that there is no such thing as
topical bleeding independent of pro-
ducing an effect upon the whole system.
In the phlogistic phlogotica leeches and
cupping with scarification are of no
importance for u.s. from the arm is all
that is requisite. In local atonic infl.
the practice is more plausible.
Here topical bleeding is the best but
the imitation of cups and scarification

8 does more injury than the evacuation
does good, unless applied to a neigh-
boring part, and then the counter-
irritation produces the effect. As
the disease however does not affect
the constitution, it is of little consequence.
The blood is not stagnant in the part
for then it would be coagulated and
would not flow - consequently topical
bleeding cannot empty the vessels of the
part - Besides, infl. is not caused
by accumulation of blood - this accu-
mulation is an effect, not the cause.
If a general phlogistic diathesis
exist, topical bleeding is no substitute
for v. s. - If there is no general phlo-
gistic diathesis, topical bleeding is
not required.

The cases which have
been benefited by topical have
been cases of atomic infl. Here
the counterirritation produced
the effect. It is not a substitute for v. s.

of blood being injurious as far as it goes - Yet the practice is very fashionable

In these cases bloodletting is not indicated. Deobstruents & antirritants such as calomel and opium give far more speedy and perfect relief. Ophthalmitis is a dis. in wh. phys. say topical bleeding is indispensable.

A stro. - sol. of nit. sil. is far better & gives a more speedy cure. If you separate some of the vessels going to the part, then to be sure you may produce some beneficial effect.

Where general bleeding is not indicated, topical bl. is always injurious.

The capillaries are said to have an independent action, and the reasons assigned are that it is by their agency that the blood is returned to the veins, that by them assimilation, secretion and imbibition are performed - that they are the seat of infl. The vessels are probably where it is

10 no less true that the capillaries, as
necessarily and completely depend
upon the heart as the heart upon them.
Depletion of blood affects both the
capillaries and the heart, hence the
surface is pale. If the action of the
heart is increased there is congestion
in the capillaries and less blood in
the central parts. In this case topical
bleeding would remove the congestion
temporarily - it would be again
produced by the vis a tergo.

In infl. the veloc. of the blood is
dimin. indeed but the blood is not
stagnant, or it would coagulate.

I would not be understood
to say that cupping, and scarifica-
tion, are of no service, for I have
seen them used with great bene-
fit.

But I do say that, after means
are in my opinion better, cupping
only produces their effects by counteraction
and in no other manner, for it

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Thus in the chronic stages of sub-
acute rheumatism I have known
evident relief derived from them
- yet no one would bleed in such
a case - also in Pneumonia -
The benefit is the same as from ru-
befacients, blisters &c.

The strongest case is
infl. of the eye - and the anasto-
mosis of the ophthalmic and tempo-
ral arteries is thought to have influence
But even here if there is active infl.
and phlog. direct. topic. bl. will be
no substitute for v. s. In atonic
infl. without phlog. action the case is
better without bleeding of any kind
& topical bl. is beneficent only by its
irritation. I have seen both plans
tried. Dr Cogswell treated infl.
without, and no man was ever more

successful. Few employ it who have had extensive practice. There are other and better means of counterirritation.

Depletion from large vessels and depletion from capillaries are better appellations than general and topical bleeding, for the latter, as we have seen is inappropriate.

Depletion from large vessels may be performed by v. s. or arteriotomy. The veins are the vena media basilica at the bend of the arm, the vena cephalica major on the inside of the ankle & the v. cephalica minor on the outside of the ankle.

The vena media basilica is preferable to the ven. med. cephal. the v. cephal. or the v. basil. as the latter have cutaneous nerves running over

their surface. The veins on the ankle ¹³
are irregular; they have cutaneous nerves
running over them, and the tendons are
liable to be injured. Besides the incision
does not heal well but is liable to be-
come a troublesome sore. The vena
jugularis externa is often selected.

The temporal is the only artery
now selected: it is the only safe one as
it alone passes over a bone, so that
it can be compressed. It is of no
consequence whether blood is taken from
a vein or from an artery, or what vein
is selected - so far as the disease is
concerned - provided the opening
be large enough.

Depletion by the capillaries
is performed by means of leeches, or
by scarification and cupping. The
Liquor medicus is used but I
have seen the *pt. sanguinea*? do nearly as well.

The best instrument for v. s. Boj. T. thinks is the Dutch or spring lancet - as it can be used by those who are not ambidextrous - It can be used upon the most rolling vein - and upon persons in epileptic or general convulsions - the practitioner can set it and keep it in order himself - and it can be used for years, while the thumb lancet soon becomes dull.

Depletion of blood may be a remedy in itself or it may be preparatory to the action of other remedies. V. S. for local symptoms can never be beneficial where the general symptoms contraindicate it but may be beneficial when they neither indicate nor contraindicate it.

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Bleedings is employed to answer
six indications

1st as a mere antiphlogistic or
refrigerant measure in tonic
diseases

2nd for the purpose of making a sud-
den and strong impression upon
the system in order to produce a
resolution of certain non phlogistic
& not materially atonic diseases

3^d to equalize excitement - increase
susceptibility, and prepare for
the better operation of other remedies
in certain non phlogistic diseases

4th as a substitute for a habitual but
moderate hemorrhage & to divert it
to some other part for the purpose of
suppressing it gradually or pre-
venting a too rapid sanguini-

16 cation — as in Exangia cyanea (non
closure of for. ovale) Exangia aneurisma
Paracysis irritativa (morbid pregnancy)
wounds of the lungs brain &c.

5th to produce sudden faintness and
relaxation for the purpose of facil-
itating certain surgical operations
as the reduction of hernia or luxation

6th to promote absorption, in paralytic
exphysemata (tumours?) & perhaps
in certain dropsies,

Venesection is the most appropriate
remedy for phlogistic diseases and should
always be employed when any consid-
erable phlogistic diathesis ~~prevails~~
exists, whatever be the sex, age, climate, sea-
son or constitution. ~~the~~ blood is the sub-
stratum of life, a depletion of it has
greater effect in lessening the vital
powers ~~than~~ ^{than} the evacuation of any other

fluid

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A free evacuation of blood from a healthy subject immediately produces more or less debility & increases susceptibility, appetite, and sanguification. But if carried to excess it impairs the digestive powers.

The strength of the pulse is the only proper indication for v. s. When Fordyce and others mention hardness as the test for phlog. diarrh. it is evident from the context that they mean strength. When however they speak of hardness and strength in connexion they make the same distinction, as Boerh. Hardness indicates irritation and may accompany strength or weakness of pulse. It is said by some writers, that in enteritis we are to expect a small hard pulse and are always to bleed. If truth is there are to be shewn at

18 enteritis which are accurately described and distinguished - 1st phlegmonous enteritis, affecting all the texture of the intestines 2nd erythematous enteritis, affecting only the mucous membranes. - Now the pulse in both these species, is small and sharp - but in the first no pressure can extinguish the pulse either in the systole or diastole - in the second it is easily extinguished. In the first species only do we find strength or pulse & in this only is v.s. indicated.

Hardness combined with strength heightens the indication for v.s. - these combined with fullness heighten it still more. Mere fullness & hardness uncombined with strength ~~are~~ never require v.s.

The coriaceous or buffy coat often ¹⁹
observed on the surface of blood
drawn depends on several causes

1st the degree of preternatural vital
energy or preternatural strength of
action in the system - in other words
the degree of phlogistic diathesis

2nd the rapidity with which it is drawn

If taken rapidly it remains longer
before coagulation, the red glob-
ules subside and the buffy coat
of course appears. If taken more
slowly it coagulates sooner and the
buffy coat is less or none at all
even though the disease is phlogistic.
Even in health blood may be so
drawn as to exhibit the buffy

coat

3rd the depth of the vessel in which
the blood is received - if shallow
the subsidence of the red globules,
all the less causes the buffy

2^d Coagulable distinct

4th The specific disease, whether antonic or (frequently) antonic produce a buff coat

5th Pregnancy is ^{almost} always attended with a buffy coat

It will be readily inferred that Prof. T. lays very little stress on the buffy coat as indicating the propriety of bleeding or the necessity of a repetition. Wilson Philip and others express the same opinion. The firmness of the coagulum and the concavity of the surface are better tests. But the existence of these marks, & also of the buffy coat is no proof that a repetition of v. d. is called for.

We should not mistake for strength of action, the rigidity of the coat, of the arteries so common in farmers, seamen & elderly people.

In phlogistic diseases, as carcinoma
 and the Carcinatoid phlogistica V.S. if
 employed early will of itself effect a
 cure. But it must be well managed. If
 too sparing at a time and too often repeated it
 will produce as great a reduction of
 strength. If too profuse it may lay the
 foundation of other diseases. Those who
 are celebrated for removing diseases sud-
 denly by a free depletion of blood, lose
 many of their patients by subsequent
 dropsy.

If there is no considerable
 increase of strength of action V.S.
 may safely be neglected. In merely
 tonic infl. it ~~may safely be neglected~~
 is of no benefit - but may be if the con-
 stitution is brought to sympathize
 with the local affection. The phlogis-
 otica ^{stomach infl.} differ in their causes, diathesis
 and proper mode of treatment.

There is a foundation for the distinc-
 tion of active and passive.

Some years ago the essence of infl. was thought to be an increased strength of action in the arterial system. Wilson-Philip thought it to be debility. But these views have tended ~~to~~ to confirm the distinction of active and passive.

It is acknowledged that there is a tonic fever. Is it any more strange that there should be both antonic and atonic infl.? The essence of infl. is not the quantity or strength of action, but as is well remarked by Hunter the quality, and it may attend either increased, or diminished strength of action, or a state of action neither increased nor diminished, and the treatment must vary accordingly. In infl. moderately atonic v.s. might be tolerated and would not destroy life - it would render the recovery slower and less perfect. In very low atonic

infl. (Phlogistica) v. s. would be fatal.
 I never knew a physician in Conn.
 who did not employ bleeding in chronic
 diseases. This has been asserted with
 respect to myself, but altogether
 without foundation. Dr. Danforth
 of Boston did not bleed a patient
 for the last 20 years of his life
 (this is noticed as a strange thing
 - a man successful and of high
 reputation). Now the change of
 diathesis occurred about that
 time 1807 (to 27) and though
 sporadic cases of phlogistic disease
 occurred subsequently he may
 not have seen one (vide Fl. Med. B.).
 I have myself seen but one deci-
 ded case since 1816 & that was
 in 1819. You will occasionally
 meet with a case of phlogistic dis-
 ease and cases arising from casually
 - though the latter will require less
 bleeding than the idiopathic.

When v. s. is employed for the first indication, viz. as an antiphlogistic measure in entonic diseases, the degree of effect depends entirely upon the quantity of blood abstracted and not at all upon the manner of abstracting it. It is said by some that bleeding is more effectual when it produces faintness, & that in such a case a less quantity of blood suffices. Such cannot be true phlogistic cases. In every pure medical case the production of faintness & especially of syncope is to be avoided. In phlogistic diseases we must bleed freely, so as to meet the symptoms, but in a recumbent posture in order if possible, to avoid delirium. In the phlegmonous phlogistic the production of delirium is un-

for Amate as it may prevent a sufficient abstraction of blood.

The abstraction of lbj or lbs is generally sufficient, nit. pot. - torr. & fr. - refrij. salt - veg. acids, ripe acid & subacid fruit - cold water & air sh^d be employed at the same time as auxiliaries. By thus dividing your measures you produce more effect upon the dis. & with less injury to the system.

In phlogistic diseases N. S. practiced early and judiciously in the forming stage will produce a complete resolution. After the forming stage has passed, the dis. cannot be broken up but will run its course of 5 or 7 days under the best treatment. but this treatment will seldom fail of effecting a cure.

In phlogistic dis. v. d. may act somewhat on the principle of making a strong impression on the system. But if a strong impression merely is the object, ligatures on the limbs are better. A third or a half of the blood in the system is in the limbs & ligatures upon them will produce faintness ^{& syncope} better than v. d. This ~~relieves~~ ^{cures} the disease, but when the ligatures are off it is found that no permanent benefit results & v. d. must be employed.

In genuine phlog. dis. faintness and syncope are no proof that sufficient blood has been drawn. More reduction without counteraction will not? Cure phlogistic disease. It would seem that an aggregate of symptoms exists

one of which is increase of strength
 & this is removed by v.s. The aggregate
 is thus broken up and the dis. com-
 pletely cured. Mense irritative or
 symptomatic tonic fever requires
 less depletion than that which is idio-
 pathic, and after one bleeding, o-
 pin^{or hyoscyam}_{um} colomet will allay all
 the symptoms. These may even prevent
 the ~~recurrence~~^{occurrence} of the symptomatic
 fever. Irritative fever is however of-
 ten atonic & then no v.s. is proper.
 Abernethy remarks that the fever
 must take place and we cannot
 prevent it. He cautions against
 bleeding in cases that must be pro-
 tracted as all the vital energies
 will be wanted before it can
 be says one sh^d never bleed unless
 the fever will produce a greater de-

bility than the loss of blood. The ady
 infl. & irr. action wear out the strength
 and if more strength, saved by con-
 tracting these, then is lost by the evac-
 uation, then is v.s. proper & not
 otherwise. A surgeon of more exten-
 sive practice in N. E. than any other
 out of Boston ^{has} remarked that he had
 seen more cases of death from debili-
 ty after injuries, than from the
 casualties themselves. Chas. Bell
 remarks "A man has received a
 shock, the surgeon bleeds and the
 landlady gives a dram - now I
 think the Landlady is right" Dr
 Latham remarks "that many cases
 of recovery after v.s. are in truth
 but lucky escapes from death".
 The symptoms are the only safe guide
 for v.s.

A writer in the *Medico-Chir. Rev.* remarks, that the man who should draw a distinct line between *apasm* (or irritation) & *infl.* would render great service to the profession. Prof. T. does not consider the distinction so very obscure. But they in London consider synocha as inflammatory & hence it is that they cannot distinguish irritation from *infl.* In cases where there is doubt whether irritation or *infl.* exists it is the safer practice to avoid v.s. There can be no danger or delay. But we can commonly decide - if during the flow of blood the pulse soon becomes weak and fluttering, even though it should rise afterwards, v.s. will do no injury. But if the pulse becomes softer and fuller we may expect benefit from v.s. In doubtful cases it is better to take too little than too much blood as the error is more remediable, and besides such cases do not absolutely require v.s. The lancet is a little instrument of mighty mischief.

vide *Stasis mimosi inquieta*, a few
of pure irritation.

The second purpose for w^h
v. d. is employed is to effect a resolution
of certain dis. by a sudden & strong
impression on the system. The dis. in
w^h the practice can be attended with
benefit are non-phlog. but not mate-
rially atonic - pyretic phlogotic
& exanthematic - more especially those
of the synchous or sub putrid type
The beneficial effect of v. d. in these
cases depends upon the shock and a
strong impression made and not on
the quantity abstracted. Hence our
object sh^d be to conduct the pro-
cess as to produce the strongest impres-
sion with the least possible loss of blood
The patient sh^d therefore be placed in
an erect posture, the blood sh^d be
taken from a large orifice & the flow
of it stopped suddenly and instan-
taneously, as by the application of the

danger. In this way delirium may
 be produced speedily. It is most prob-
 able that ligatures upon the extremities
 would be a complete substitute for
 this practice in all non phlogistic
 cases - with the exception of surgical
 ones, & perhaps even in these. The relax-
 ation is certainly as perfect for the
 time being. But I consider the
 practice of V. S. in these cases to be
 injudicious. We have other means
 for effecting this purpose, more safe
 & more effectual. V. S. at the com-
 mencement of typhus will give pres-
 ent relief, but it is always after a re-
 cession an unfavourable change at one
 of the critical periods. As was before
 observed the abstraction of l_{bf} or l_{bj} is gen-
 erally sufficient for the time being in
 true phlog. dis. But the abstraction
 of l_{bj} would make no impression in
 the synochous or sub-putrid type of

Cases of this wd not tolerate a repetition of the v.s. In dis. of the synoch. or sub-
 mtrid type does not sink fatally till
 the 14th or 21st day, in the pyrexia. &
 not till the 7th or 9th in the phlogotica
 Fever of the synochus type influences the
 opinion of a great many phys. in forming
 their ideas of canna or infl. fever

We must in these cases, em-
 ploy v.s. as a counteragent & not as we
 would in phlog. dis. or we shall either
 produce no effect, or exhaust the pat.
 & render the dis. more obstinate & pro-
 tracted. If we bleed at all in these cases,
 we must do it suddenly and rapidly
 in order to produce a sudden & powerful
 impression and overwhelm the disease
 at once. In other words we must half
 kill the pat. in order to cure him

& see the authors of the present day
 say nothing about real canna - they
 describe only synochus for canna on
 most go back to more ancient authors.

The cases in which this practice is recommended are quite different from those of the nervous type. In l. nervous & synchialis - no one but a complete romanticist will ever think of v. s. In fevers of a sub putrid or synochus type only, is there any question about the propriety of v. s. I consider such practice as rash. If it fail of its object it must infallibly sink the patient & render the case more hopeless. I am an advocate for a milder course - one which is less violent and dangerous, and more steady and uniform in its operation. By it more may can be effected, convalescence is more perfect, relapses less frequent & constitutional vigour less impaired. Hence depletion of blood in atonic dis. as a mere counter agent, is considered by Prof. T. as a hazardous practice - exhausting the patient

if it fail in ~~counteracting~~ resolving
the disease. In phlog. dis. there is no
such nicety. Blood may be taken at any
time before a crisis. The fact which
all acknowledge that blood if taken at
all in synoch. dis. must be taken ~~early~~
in the first stages prove, the hazard of
taking it at all.

A proper test for the propri-
ety of bleeding, for vomiting and pur-
ging is the effect of spontaneous hemor-
rhælis and diarrhoea.

It is in my opinion never
proper to bleed to faintness or syncope
in any purely medicinal case, & the
mistake of synochus for Cancer has led
to the practice. In the true phlogistic dis.
there seems to be a state of the system which
increases the supply of the vital energies
& I would bleed purely for the purpose
of reducing this state. I would not
apply irritants to the surface till the

system is reduced nearly to its healthy
 standard - then blisters and other irritant
 will see over the weak organ, of phlog. act.
 Even cancer may sometimes be broken
 up in its forming stage by the use of
 counteragents to only, as hot spirits & water
 forced sweat, &c. in empirical practice.
 But these means if they do not effect a
 resolution must aggravate the case &
 are always hazardous. So the sudden
 removal of phlogotica of a synochus type
 is followed by a protracted convalescence
 and often by the superovention of other
 diseases. Dr Mosely of E. Huddar was
 celebrated for curing dropsies & most
 of his cases were occasioned by the
 free depletion of Dr Woodruff for the
 cure of pneumonia, for the speedy
 cure of which Dr W. was equally
 celebrated. Dr Martin of Syon
 remarks that many of the cases of
 chronic disease which came in

der his case were the consequence of sudden removal of phlogistica by the free depletion of another physician

Dr Good in his remarks on typhus observes "we are to avoid seduction and adopt an antiseptic and invigorating course. Cullenbush supposed typhus to be an infl. of the brain & practiced V. S. for its reducing effect. Astrucy supposed visceral congestion generative of general sensorial debility & bled as a preventative Robert Jackson supposed V. S. was a stimulating process & bled for its direct ~~stimulating~~ ^{invigorating} effect. Decided practice of any kind will succeed at the commencement." Dr G. continues "this employment of V. S. in typhus is no new practice, but the sum of medical opinion for the last three centuries is decidedly against it."

Even Dr Welch of Edinburgh the most strenuous advocate for bleeding in

typhus. & who takes blood by the half gallon, says that the majority of practitioners are against the practice & that it makes slow progress in Edinburgh.

But there is one state in typhus in which Dr. Good ~~very~~ thinks v.s. necessary - "Congestion, says he, may take place as an effect of the disease, in the head, lungs or liver & infl. organs can be the result. This symptom we must combat boldly by v.s." ~~Empiricism is in fact a dangerous and unscientific method~~
 "There is much hazard with the practice but there is death without it" In my opinion there is far less hazard in letting it alone. In pneum. typhodes, he wholly interdicts v.s. He is very unfortunate as to the time when v.s. may be serviceable. In the early stages, as we have seen there is far less danger in v.s. But as to employing it in congestion, experience, observation & reasoning a priori

all unite to show that v. d. will increase
the congestion (vide Congestion.)

And if in these cases v. d. is the cause
of the symp. this infl. must ^{from the state of the system} be tonic
& as little benefitted as that by v. d.

Dr Good supposes that by phos-
phorus runs into phlogistic action. This
is far more improbable than that can-
na should run into typhus & both are
contrary to fact. Most surely stimulants
and excitants can never induce phlogis-
tic action in typhus, for even in the latter
when given in various quantities they produce
not phlogistic action but irritation &
if carried farther erythematous infl. &
irritative fever.

I have seen cases of great
head affection in typhus in which on p. m.
exam. not only no infl. or cong. was
discovered but the ~~head~~ brain was,
even soon preternaturally pale. The
same has been the case in delirium
tremens & puerperal delirium. Infl. or

congestion is certainly then not essential in these cases. In great atonic hemorrhages & after great loss of blood from any cause congestions in the brain are likely to occur. In a vast number of bleeders, however, the most congestions.

My conclusion then is that v. s. is never indispensable in hysphs & never in apnochy - that if ever employed it should be in the early stages - & that if employed subsequently it produces at most only transient benefit & renders moderate cases severe and severe cases incurable.

The third purpose for which bleeding is employed, is to equalize excitement, increase susceptibility and prepare for the operation of other remedies in non phlog. dis. that are not materially atonic.

In these non phlog. cases v. s. increases susceptibility and irri-

inhibitors, so that greater remedial effects are produced by most medicinal agents. It sh^d therefore be avoided in those cases, in which there already too much irritability and susceptibility. The susceptibility to diseased action and to remedial action is different - though v. s. may increase both.

N. S. is a powerful preparatory in appropriate cases. It promotes the action of Emmenag. Diaphoret. & cathart. &c. It produces this effect in different ways and partly by relaxation.

It has been supposed that like nausea v. s. increase, the susceptibility to the action of deobstruents. If phlogist. diarrh. exist v. s. more of course - this susceptibility. If however there is considerable atony it will diminish the susceptibility to their remedial effects while it will increase the susceptibility to their irri-

tating and evacuating effects. Even when there is no considerable atony V.S. will often reduce the system considerably below the favorable point of susceptibility for the operation of deobstruents. I have learned from experience that the higher the degree of energy shut up among, the better is the operation of deobstruents. I have observed this particularly in peristhmitis, bronchitis, rheumatism, gout, & paramenia obstructions (as it now occurs) V.S. renders the operation of deobstruents precarious in these diseases. Colchicum for example, will relieve rheumat. more speedily & perfectly without it & has failed where it has been employed Do of acetum sacch. Moderate V.S. for this purpose, when the dis. is but moderately atonic may sometimes be beneficial, but it must be used with caution and is never indispensable.

Examples, of diseases, in which

v. s. is employed for this third indication are Colica ilea, in certain cases Typhus convulsio - & epilepsia case, apoplexia (sanguinea, apoplexy), entesia tetanus - Tyssa canina & other diseases in some particular cases.

When v. s. is practised for third indication, we should avoid drawing too much blood on the one hand & the production of syncope on the other. Tetanus and Tyssa canina are however exceptions. In these, if the vital energies are perfect we should take as large a quantity of blood as the system will tolerate & in such a manner that after the requisite quantity has been taken syncope shall be produced. But even to this, there are exceptions. In general our success does not depend on the quantity of blood taken nor on the shock produced; it should also be borne in mind that v. s. in these cases, is only preparatory & is of no

permanent benefit in itself alone. It must be followed by other appropriate remedies or we shall soon lose the advantage we have gained.

Bleeding for the 4th purpose is employed in habitual & passive but moderate hemorrhage, as in paraneuric error.

Bleeding is never employed for the purpose of directly checking hemorrhage. In active hemorrhage it acts by obviating the state of the system on which the hemorrhage depends, and other means will accomplish the same object - for instance the exhibition

of acetate of lead. In irritative hemorrhage (commonly called active) v. s. may be tolerated but it will have no effect in checking the hemorrhage, in case the depletion is very copious and often repeated. And it is always a dangerous practice, producing exhaustion, hectic of inanition and even death itself. Many lives have thus been destroyed which

might have been saved

Vicarious hemorrhage (misplaced catamenia) may be either active, irritative or passive, & in some respects follows a different law from other hemorrhages. It is important to select a particular time for the use of appropriate medication sh^d follow. The hem. recurs with the same regularity as the catamenia and is ~~probably~~ preceded by certain precursory symptoms. The time to bleed is at the first occurrence of these symptoms & means sh^d (then) be adopted to excite the catamenial secretion. It is not necessary or proper to take a ^{very} large quantity of blood or produce a shock or faintness. The abstraction of a little more than would have been lost by the hem. will be sufficient to interrupt the latter, & this repeated a few times will break up the habit. In the intervals suitable emmenagogues sh^d be given & as there is commonly a torpid state

of the digestive organs, a combination of iron, Sanguinaria and aloes is often found to answer well. All the tonics are useful.

Parægesis irritativa. In the first months of pregnancy terrible some symptoms arise from frequency of v. s. would give no relief. In the latter months they arise from pressure and and a moderate abstraction of blood may be proper. We should however be careful not to take too much. Even in the earlier stages much bleeding will occasion abortion & in the latter stages it is very apt to cause miscarriage. Indeed there is no more certain mode of effecting a miscarriage than v. s. In some places (not so much on the Continent) pregnant women are always bled, as a matter of course & some cases as fifty requires it. This practice is properly followed, if not indicated, yet attended by bad consequences.

Sague vs. Recovery after parturition
 be lingering & imperfect. Bleeding in
 pregnancy is very apt to produce abortion.
 I have known cases of 5 or 6 abortions in
 succession produced by R. D. in proper
 & employed & where the far lessening
 Chills from this cause. Two sub-
 sequently called to and a case when
 abortion was threatened. I ordered a
 horizontal posture & gave opium
 in small doses, at reg. interv. & remo-
 ved the sympt. In the interv.
 I gave ton. & invig. rem. Iron was
 the best in this case, though it has been
 found to prod. abort. The sympt.

themselves in these cases are not such as
 indic. v. 2. - they arise from disord. stom.
 In this way I have safely carried bat. thro'

Exanguia Menstrua - In-
 part. in an. of large bloodvess. is of
 the worst. Here it is important to get
 the bat. along with as little loss of
 blood as possible. While it

not to mistake palpab. of heart sym-
tom al. of derange. of dig. org. for aneur
I have known it, done & the case treated
with v. d. & ever. test. like it was the 1st
case. when it was thrown aside & the pat.
recovered.

Wounds of lungs. Ex-
tensive & repeat. bleed. are necess. when
a man has been shot through the lungs
& perhaps when shot through
leave no more blood than is necessary
to sustain the functions of the system
In wounds of the brain the dang. is from
hem. Though we must bl. copiously
yet we must avoid prod. delirium
which might cause death - hence a
horiz. post. These cases are entirely
diff. accidents & Cardinalties
Above remarks "the Surgeon must
let the infl. (the danger is from hem. not
from infl.) kill the man or run the dan-
ger of killing him with the hem. & he
says "the latter sh^d be preferred."
I think he is wrong. Thus of omission

are not so bad as some of Commission

V. Cholelithus maius - prob. oth. rem. are better. Sedtia veralis var caliculosa narcot. prob. better in incarcerated Hernia deplet. to faintness said to be success. L.

if ether 2^d by Wood. to be better Certain Suxations - (Not, I think in any case of fracture). Parodynia im-
plasticea with cult part. for rigidit.

Belladonna is better

In these cases the quan-
tity of bl. taken prod. the relax. &
the weakness - Manage
as for 2nd purpose - stand or sit
- pleno vivo - large orifice - not
stop it so soon as for 2nd purpose
If when enough has been taken faintness
is not produced, stop suddenly, to prod.
faintness. If a surgical case seize
this man for the operation.

Parodynia implasticea - the
pat. is in pat. - the prod. is in a

hurry, it is too often, so that when
it does injure. A celebrated accouché
has broken down many constitutions
in this way. Vicia neri is for cases
Bella often answers

VII - To prod. absorpt of
paralytic & of emphysemata in
ext. tumors. If the part is viable
it can not be employed & unless a con-
siderable quantity can be taken it is
of no service. To be effectual the u.s.
shd be as free as can be tolerated
without injury - use judgment - avoid
also shock & fainting. Employ it
also in the early stage - It is of no
advantage in cases of long standing &
may be dangerous. Often it must be
followed by other & remedies to
promote absorpt - as quick & active
vomiting with turpentine or
blue vitriol, or even sanguinaria
slow and brisk purging with elaterium
is also efficacious in the intercurrent

in the use of tinct iodine. This is individually
or in combination, are peculiar remedies.

Situation has an influence on the
quant. of M. which may be taken. Persons in
warm or moist situation ^(malaria) will not bear it so
well. Phlog. dis. is less likely to occur & at
same degree, it requires less res.

It is less indicated in dis. of chil.
but when ind. they bear it very well. Child.
are more subject to dis. of irrit. than of inf.
If when infl. exists we should be less vigorous
in our deplet.

It is also less required in the
aged.

In stomach habits less ^{res.} is re-
quired to subdue infl. & such habits
will not tolerate bl. well for other purposes.
Avoid it in them when you can.

The season of the year is not to
be regarded. In the Billabury in same hosp.
London, they formerly bled all the pts. in the
spring & phaged them in the fall.

When there is not vital energy
enough to move the mass of blood, it has
been thought that by taking a small portion of
the mass away or at least the moving force. B. &

i find that depletion diminishes the
 vessels still more than the moles are - as
 a small bleeding when not in-
 dicated will not do much hurt - for inst-
 ance $\mathfrak{Z}j$ to $\mathfrak{Z}iii$ with cinnamon water, as
 I see in one case

Excessive deplet. produces ex-
 haustion, impairs the digestive power, occa-
 sions what are called nervous symptoms &
 imperfect sanguification, with a defi-
 ciency of the colouring portion of the blood
 in consequence of which the minute vessels
 convey a colourless fluid. The nervous and
 absorbent systems are more weakened in
 proportion and hence obesity, leucophleg-
 masia and dropsy ensue. Hætic of
 mania is often prod. which often fol-
 lows uterine hæm.

U. S. prod. is most freq.
 Cong. in brain - often in thorax or abd.

A habit of being bled prod.

Corpulency, obesity, with laxity & debilit-
 y of the thorax, a tendency to excessive forma-
 tion of blood, i. e. the increase of the
 there is a deficiency of sanguification
 will increase the blood. It is well known
 that remedies will produce opposite ef-

-fects in opposite states of the system.
 Deobstruents for instance will check mor-
 bidly increased as well as ^{an excess of} diminished secretion. Deplet. may pro-
 duce gen. debility with morbid irritab. or
 debility with torpor.

History Blood letting (I believe)
 was not practised by Hippoc. Celsus
 bled in all fevers when the pulse was full &
 skin florid Aretus who is supposed to have
 preceded Galen bled in that fever called
 Canis. Galen bled profusely every in typh.
 The Arabians followed him? ^{the Egyptians?} Why did he
 bleed - Willis bled. Boerhaave did not
 bleed in putrid typh. These all had a
 sort of routine practice, & no fixed prin-
 ciple. The number of phlog. dis. is less
 than that of atonic. but you'd infer the
 contrary from the books. He can't die.
 nor form more phlog. There are no
 more chronic dis. than former, but are
 generally atonic. During the reign of a
 phlog. diarr. chron. dis. may be somewhat
 atonic. Canis is the only fever which is
 uniformly atonic throughout.

It's com only supposed that all
 ill. is necessarily atonic but many
 are confessedly atonic e.g. pneumonia &

Simple Saline Refrigerant Nitrate of Potassa

A white colorless salt, crystals in hexaed. prisms - contain. no wat. of cryst. - though some is mechanically united with the cryst. Undergoes igneous fusion. Decomps. by red heat, becoming nitrite; & finally oxide of potassium - 1 nit. ac. + 1 ox. potassium
Sp. gr. 1.9603 Solubility increased by addition of chloride of sodium.

Tested by throwing on a red hot combustible, or ^{where it deflagrates} ther coal, or by red fumes of nitrous ac. when sulph. ac. is poured on its powder, also by the form of the crystal, but impurities make the form vary. The impurities are chloride of potassium and sodium. To remove these dissolve in boiling water, filter and crystallize. The nit. pot. cryst. first dissolve in distilled water and add nit. sil. & no? prec. is formed.

Decomposed by Sulph. ac. & by borate - by Sulph. of amm., & agr. solution & by Sulph. acid. at 32°
Hence all these are incompatible.

In phlog. dis. taken in the quantity
of $\mathfrak{z}\text{i}$ to $\mathfrak{z}\text{ij}$ in the 24 hours it is a more
& powerful refriger. &c. &c.

Ed. & Wavass. call it stimulant
temperant & diuretic. Paris thinks it
refrig. & that it sh^d be taken immediately
after solution, as it is then colder.

I think it never directly diu-
phoretic & the diaphoresis that sometimes
follows is the result of the disintegration
of the entity. U. S. will do the same.

Renaud thinks it one of the best of
the diuretics. Paris thinks it acts
primarily on the urinary organs, by
passing in substance through the circula-
tion to the kidneys, but he considers its
diuretic power as inconsiderable. In
scarcity of urine and diaphoresis, which
result from entonic action it is directly
diuretic, but is not materially so in
health. It moderately increases these
discharges in diseases, neither entonic
nor atonic. Murray is right in saying
it is too inconsiderably diuretic to be useful
in dropsy. It is not sedative in it.

sense of antispasmodic. Pons calls it
 a pericard meaning probably brachio
 Ramie says $\mathcal{D}i$ to $\mathcal{D}ii$ is prognathic - but
 this operation is unconsc. It is merely
 the result of brachio, phlog. diarr.
 Called also antispasmodic or nervine
 - but sperm rarely accompanies phlog.
 diseases. Antiseptic only upon dead
animal matter. It will however prevent
gangrene from high antonic action. Em-
phona is called the best antiseptic. But
 these cannot be indicated in the same
 disease. Do An can say, "N. T. pot." is
 admissible only in enteric dis. & A. T. T.
 agrees with him. They are probably
 strictly correct. Its all effects (as in typhus)
 may not be immediately observable
 improving the tone of the stomach &c.
 Given in atonic dis. & dyspep. it pro-
 duces a small frequent ^{febrile} pulse, cold
 extremities, pain in the abd. like rachialg.
 sluggishness and weakness in all the acts
 of system, & sometimes atonic haemorrh.
 When it is indicated it should be
 given in uniform small doses $\sqrt{gr.}$ to $\mathcal{D}i$

The test for too large a dose is pain at the stomach soon after it is taken - indicating a disin. dose has to be just short

medium dose is called by Duncan 16 grs. others more or less - this depends on the intensity of the dis. & the const. of pat. It may not be too much. Generally give it once in 3 hours in quantity just short of that which prod. the pain

When its use is continued it can often be detected in the urine. Paper dipped in the latter and dried, will dehydrate. When the bowels were very torpid I have detected it in small quantities only & those not proportioned to the effect on the system. If the bowels were loose, no trace was discoverable. Hence it follows that its medicinal effect is not the result of its being taken into the circulation

Externally applied it is a local refrigerant - also in a tonic affl. I add chlor. lod. to favour the solution & apply immediately. Applied to the der

and irritated part, it prod. is topical
irrit. & infl. & so does, last. act. It is
refrig. nevertheless. Ev. phosphorus
when made to prod. a topical infl. & so
prod. ator. infl. This is true of all the stim.

A very large dose var. it actively
& is thrown off. If a poison - does but the
like. It prod. is sharp pain, in the
stomach, nausea, swell. of abd. & sea.
of cold in stom. Cold of exte. - weak
of pulse - sometimes bloody disch. -
faintness, syncope & convuls. & death.

Said to cause ulcer. of intest. & that it
inc. memb. is disch. This would prove
that it excites a sanguiferous infl.

The quantity constituting a pois.

Dose varies with the state of the system &c.

In strong & tonic action it can scarcely
prove pois. at best as long as there is
an tonic action to subdue A.T.T. says
3j - Renna 3jss. to 3j

Croft says its poisonous ef-
fects are like those of the narcotics & the
recom. Sulph. Soda as an antid.

The veget. acids & alkalis have the
same eff. & the purgative salt would

also if not so soon carried off by cathartics;
 Med. Jurisprudence Noth.
 but detac. of article can be relied on

Treatment - An emetic (if no
 evacuation has taken place), immediately
 of turpeth-min. bl. & wh. vit. though
 these are liable to fail - hence the veg.
 em. are better. *Spica* in large quanti-
 ties, tho' gr. it is less certain than *Gille-*
nia trifoliata & *stipulacea* & also *Eu-*
phasia spec., *gracilis* & *corollata*
 Probably *Sanguinaria* & *hytolacca*
 would be good emetics. But recent
 finely powdered *Sinapis nigra* is the
 best, which prevent torpor & dry stor.
 Give about a ~~teaspoon~~ ^{table} spoonful &
 repeat two or three times if necessary
 It is more effectual than the other veg.
 emet. & disturbs the syst. less than
 the min. emetics. The distilled wat
 of *samm. flammula* (if at hand) w'd
 prob. be still better. A few years
 since a man travelled about the state
 selling an article to vom. without prod.
 sickness. It did so. Many persons took
 it merely for the experiment. It was this article

To obviate the eff. of nit. pot. give opium
 & alcohol - diminish it. If its morbid
 effects have taken place & there has been
 no vom. cath. are for use. Castor
 oil $\mathfrak{z}j$ or $\mathfrak{z}ij$ or gutt. $\mathfrak{p}.$ to \mathfrak{j} of *Cl. tiglium*
 or Cast. oil with spts harts the latter
 being a stim. & well as a purge - then
 will be better than sulph.

The refrigerants & especially
 nit. pot. have been much underrated
 of late - partly from change of diarr. &
 partly from inefficient use - but chiefly
 from the chemical theory of their action,
 by a transference of their oxygen - first ad-
 vanced by Murray. He has ab-
 andoned this theory & still calls them
 chemical rem. They are as much
 vital as any other.

Therapeutic application

Acute merc. ptyalism - rec. as a Cath.
 supposing it would allow the burning
 sensation. This eff. is irritative and
 as this is also the eff. of nit. pot. we
 suppose it inadvisable, but there
 is a possibility in this reasoning for

Centh. will prod. & also cure ~~infl.~~ irrit.
 As topicae applic. there is a fallacy in
 arranging articles as refriger. or sterc. We
 can draw no conclus. from their ~~in~~ operation.
 Probably ol. pin. & nit. pot.
 operate of on the same principle in
 burns.

The best remedies for mercur.
 ptyal. are op. in br. - wet. sol. of op.
 as a wash (unless it produces irrit.).
 Fowler's sol. or sol. nit. sil. topically.

Dipsosia arises from recently
 relinquished habits of intemperance -
 rec. because it allays thirst in Causa
 reascoring body - it may by aggravating
 the atonic diath. bring on del. trem. &
 will certainly aggrav. the dipsosia
 Thirst & refriger. leg. will not allay
 this thirst. Stimulating drinks, & op. will

Dyspepsia - rec. by W. Phil. in
 strong solution - with green arabic
 when there is inflammation - therapy -
 Dr. Chopra remarks, "no article is more
 apt to relax the stomach & produce
 dyspepsia. Dr. Liez remarks, "it is bad
 in dyspepsia". It will even ^{dyspepsia} produce

Symplicus - never saw it do harm in dyspnoea
 & ad in l. gravior, increasing calor in vides
 & sc. which sp. carb. amm. so well relieve
 Caisma - sally rec. highly valua-
 ble and in portant next to v.s. & perhaps
 last ant. in nauseating. The gold
 swine is called Rush, febrifuge & much
 used in Phil & nit. pot. 3j - Tart. ant. gr.
 dichlor. merc. 3j - Div. into 8 mod. & give
 one every 3 or 4 hours. The dose of ant. & nit.
 is too small that a better formula w^d be
 Ant. gr 4 to 1 Nitro gr 5 give every
 2 hours

Apostemia Congruens diffuse
 suppurative infl. at inf joint - a topical
 applicⁿ of nitre as a refriger. is serviceable
 - S. of phlegm. comm. - p. bubo - p.
 furunculosis. I have seen it
 in these. It has been rec. in ery-
 them. infl. but it is always bad
 much Caust. or a blist. is better & dry
 & warm is better than cold lotion.

In infl. of fer. p. anm. it has been rec. but
sol. lin. would be better or eve. ac. pl.

Blenorrhoea sanguinea - highly rec. but
Murray says when there is ardor urinae it
is less stimulating - such. - Bl. ur.
Bals. cap. Capsic. mustard so. will cure
if these are more stimulating

Orchitis used but ac. pl. is far pref.
erable. Lint. - rec. topically but top.
applic. are always dangerous.

Ac. rheum. rec. by Murray is a refriger.
dose 5 to 20 grs 2 to 3 times a day

weights and demulcents - this depends upon
whether it is phlogistic - Suedens rec. 3 p
daily & even in common cases. In chronic
but followed by Cur. - by cur. d.

It is an import. sec. in all the enter. phlog.
the best combination nit. pot. cal. & ant.
Phlog. cephalitis solut. appl. topic. but
ice cold water is as good. Acute phlegm.
quincy, - highly extolled as a gargle & not
without reason. In eryth. infl. of fauces

It will not do much & no act. is superior
to capricum. - others bad.

In fl. of muc. p. of bladder - highly re-
in med. infl. of blad. & the tongue, but it
- but it is, doubtless a hot grow. as for the
- but it is, doubtless a hot grow. as for the
- but it is, doubtless a hot grow. as for the
Rec. in Scarlet fever - bad.

In tonic active hem. - useful. It is so limited
by Dr. Thompson. Murray sec. in conjunction
with diluent & demulc. - now these are said
in hem. - Menorrh. with plenior - but

It will not der. the quant. of blood & no
der. in the any. con. commences with a
- der. in the any. con. commences with a
- der. in the any. con. commences with a

der. in the any. con. commences with a
- der. in the any. con. commences with a
- der. in the any. con. commences with a

Menorrh. that had become habit. &
- der. in the any. con. commences with a

der. in the any. con. commences with a
- der. in the any. con. commences with a
- der. in the any. con. commences with a

der. in the any. con. commences with a
- der. in the any. con. commences with a
- der. in the any. con. commences with a

no good to the general health. It des. is often
 cured by, bringing on a worse. This as well
 as to be useful in irrit. hea. & in passing
 it is certainly bad.

Euphyronautica or sea scurvy rec. but
 not alone nitre with o. et. acid is a co-
 bination. I am extremely sceptical with
 respect to arbut. rec. in sea scurvy (see
 sea scurvy, p. 1000.)

poor bad food, confinement to a
 sort of diet & want of hard labour
 & is probably the same. I should not think
 this wd be better for it. - o. et. ac.

I have seen it yield readily to tonics. Ac.
 Plumbi sh^d be the basis of the treatment
 conjoin capsic. alcoh. & of nutritious
 fresh veg. diet. Let's pursue a similar
 treatment for sea scurvy, Diet & exercise
 often cure it.

Paroniria salar (identical with *Spermorrhoea*)
Sagressi furor & *salacitatis* (nymphomania
 & Satyriasis) - in these it is rec. by Swed.
 but I sh^d not expect much from it.

Obesity & Corpulence - In one instance it disturbed the stomach & dig. org. but no abatement of dis. - If it had been given less freely it would have impaired the appetite, less good we have been taken & emaciation & have followed. The old rule, keep the eye always open the mouth always shut. Feet always in motion is better than any medication.

Cellular dropsy - has been given with pills. The latter are efficient but alcohol is a better auxiliary. In many cases diuretics will not hold without alcohol & gin is commonly given. The latter acts more by its stimulant & diuretic powers. The cases that require no stimulants soon yield to diuretics or diuretic & Calomel.

Parusia thillatitia & mellita &c. I have never seen benefit from it in p. mel. but the same is true of many remedies. In diabetes it is rather injurious.

but I have not used it. I have done more
with Finck. Canth. than anything else

Lichia senalis - also use

Exornia lichen & *pousigo* *Lepidosis pro-*
riasis inveterate - used internally & externally
case it did no good

Echymosis impetigo var. *herpetica* (herpes) & *lar-*
inosa (salt rheum) Itch - I have used it
tealy with no success. It was prob-

ably given because it was thought cooling
- bad reasoning - another applic. altho.
other different has been successful in

see Burns & Sciles but I do not
believe they are to be used on the anti-
phlog. plan

Di carb. of Pot.

Sometimes called supercarbonate, or carbonate - formerly sal tartari essentielle or sal aerari. - The common pearl ash, of the shop (?)

Crystals quadrang. prisms - Taste alkaline - not caustic Sp. gr. 2.02

Soluble in 4 parts water at 60° . Boiling water takes up $\frac{1}{6}$ of its weight

More active than the carb. of has considerable activity. It to be diuretic

- it may be - but I do not believe it to be useful in dropsy. - It is

antiemetic - not much so, & must be injurious in atonic cases. As an antileptic inferior to the same dose of the carb.

As an antacid it has some power but the carb. ac. distends the stom. & weakens it by its refriger. effect. The carb. is on the whole preferable but the bi-carb.

is more pleasant. Perhaps this is the case
that it is in great favour. As a refriger.
other articles are better & as an
agent the bi carb. (or rather sesqui carb.)
soda is better

Bi-carb. of Soda

Called super carb. soda - Carb. ~~soda~~
- trona - more commonly than the pre-
ceding Carb. *sal aeratis*

Not changed by exposure to air - by forces
the walls of a fort. The heat of boiling
water & of half its acid, reduces it to
carb. No of this salt is *oxyg.*

I know of no real superiority it possesses over
bi carb. pot. Soda water every where except
in St. Havre is more carbonated water with just
two grains of soda to a two blip. It is
more pleasant without the soda & less injurious
if used and especially a habitual use of soda
water is ungenerally increasing to most per-
sons. In the des. half it is used

pro. & a dyspepsia it aggravates the ac.
Some of the best cases of it I have seen are
the habitual use of it, and the robust very
often take it with impunity.

Soda for dys. consist of pure bi carb. soda.
3j. 5j. or concrete tart. acid grs. 25 & 10
in a neutral tart. 2 da. this is a salt is
chemically different that of the powder,
the caustic

Schmidt's powder consist of bi-carb. soda
3j. & tart. pot. & soda (Richelle salt) 3j. in a
paper & tart. ac. 35 grs in another.

Some add bi carb. soda to cider - it des-
troys its natural acid - so that it
flat neutralizing the malic acid - forming
a neutral salt which is more refreshing than most
other salts

Desque carb. Soda

Chloride of Potassa 1+1 71

Is correctly called Potassae chlor. *oxy muric*, *hyperoxymuric*, *murica*, *hyperoxygata*.

There are two oxides & 2 acids of chlorine with oxygen. protox. 1+1 perox. 1+4 Chlorous ac. 1+5 chloric ac. 1+7. The last some call per chloric & the preceding from the fact that the chlorous is first discovered. Hence confusion.

Chloride of potassa is formed by passing chlorine gas through a concentrated solution of protox. of potassa, till it is neutralized as is said. But chlorine never combines with an alkali. The alkali is partially decomposed. By gentle evaporation the ~~the~~ ^{the} chloride of potassa is precipitated while chloride of potassium remains in solution.

Authors are very vague respecting its virtues. It is not a stimulant. It has been tried in phlogistic diseases & seemed to diminish the diathesis. Swedish mentions, with

Cachexiae &c chronic hepatitis &c as benefitted by it. I do not believe in the existence of chronic hepatitis. The dis. so called is merely sensibility in the hypochondriac region, occurring in advanced stages of dyspepsia. In post mort. ex. I have found no trace of infl. in the liver.

It was introduced for prophylaxis nautica from chemical notions as it contains oxygen - not much used. Said to cure dyspepsia & hence to be obstinate - useless when the constitution becomes affected - before this const. serv. are not needed.

Said to cure Catarr. dis. none specified

Dose 15 grs to 3 ss. - weak refrigerant

believe it has no other power unless

It is a fine subject for experiment.

Vide Bost. Med. Gaz. for
Prof. T's experiments - June or July 1832

Bicarbonate of Soda 2+1 (Borax)

Called sub borate - borate -
boras sodae alkalinae (because, contrary to
fact the alkali was supposed to predominate),
Called formerly chrysocolle. When impure
& native it is called Tincure

Prisms hexagonal, with two sides broader, termi-
nated by triangular pyramids. sp. g. 1.14

Change veg. blue to green. Taste styptic & al-
kaline. Soluble in water 20 parts at 60°

6 at 212°. Effloresces slightly. Loses its
water by heat; 4/10 of its weight becoming
friable - a strong heat converts it into a
transparent glass which is soluble in water

By percussion it flatters in the dark
decomposes by acids & lies - by sul-
phates, nitrate & muriates, phosphates
fluates &c.

Found only in Tibet & Persia, obtained
from ^{by} solution in impure state, by evaporation
Brought from E. I. in green masses, white
green joined by a greasy looking substance

I have known it used freely in phlog. dis.
as the root & c. that it did no harm
& was thought slightly refrigerant.

I have known it employed in the exhaustion
of low atonic diseases, not malignant & it in-
creases or does not diminish strength & action

Not stimulant. Said to be nervous - proba-
bly not, I do not think it is

I have never perceived any debilitation
thence from it. Said to be detergent. Prof. T.
never could perceive it to be so

Said to be emmenagogue - doubtful -

Prof. T. has made no observations.

Swediaur calls it antacid - It would be so
when the acids were the hydrochloric or the
phosphoric, as they may be. Lactic acid we
have seen in it and also the acetic, if it
exists in the stone. which is doubtful.

The sulphuric, nitrous, carbonic, & hyposulphuric
organic acids are all that are inferior in
energy of attraction to the boracic. Still
they will be inferior to other antacids

Herap. a/plic. Mercurius phlogon -
 dyspepsia with cardialgia & acidity - Pro-
 tica & a (Painful hemorrhoidal tumours)
 Paratyphus Coction of liver or spleen
 Aphtha - Ulcera serpentina (Swed.) Parap-
 sis acris var. pousitis -

Its most common use is in aphtha - at
 first it will allay the burning heat, but
 only for a moment, not effecting a cure
 Prof. has found milk porridge, barley
 water, rice water, or even cold water, quite
 as good and even better than borax

It is rec. to dissolve the aphthous crusts. It
 has no such power, & if it had it wd be
 injurious, as the slough defends the ulcer
 beneath from irritation 99/100 of the
 physic. of this country & G. B. prescribe
 it as a matter of course for throat
 Cases where nothing is done to quill as well
 as those where borax is used. Veg. astringents
 do something to ease or cure. Rub. silv. is good.
 Borax is rec. by Swedes for p/sis

acris var. puritatis. Prof. T. has had no experience.

For internal use as refriger. acrobat.
 Anesthetic so. the dose rec. is $\mathfrak{z}\text{ss}$. to $\mathfrak{z}\text{ij}$.
 I have used it in much larger doses without
 any appreciable effect.

Swell. legs, for a lotion in parapsis *acris*
 dissolve 10 to 30 grs in $\mathfrak{z}\text{ss}$, but
 we use it stronger.

For internal use it is merely or quite
 ineffectual. If it has any power it is a refrigerant.
 For external use it is about as active as
 wheat flour - merely palliating temporarily.
 "But my testimony is negative merely."

It is desirable that someone st^d exper-
 iment on it. Begin the experiment
 with $\mathfrak{z}\text{i}$ & take $\mathfrak{z}\text{ii}$ $\mathfrak{z}\text{iii}$ &c.

Borate of Potassa has been
 substituted for i-borate of Soda &
 that not so good.

Benzoates & Succinates of Potassa
 Of these Prof. T. knows nothing.

Carbonate of Potassa 1+1

Carbonate of carb. (can be prepared from
oil of tartari, sal absinthii
more anciently nitrous peroxide, ~~and~~ alkali vegetable (very inappropriate) also
sal aeratis tartari

It has a strong alkaline taste and a power-
ful action on acids. It is a substance
Exposed to the air it deliquesces, has an oily
appearance, hence it is called in Latin
oleum tartari, or oleum tartari per de-
liquium (a name also given to solution
of pure potassa)

It does not absorb carb. ac. from the atmos-
phere. It does not readily crystallise
Crystals show bicarbonate scales - Common
found in coarse grains.

The purest is obtained by incineration of
potash - ~~is~~ ^{is} but this contains oxide
of calcium. The more common impu-
rities are sulphate of potassa, & chloride
of potassium which however are little
concerned except in pharm. preparations.

Said to require twice its weight of boiling water for solut. & this is less. It is to be insoluble in pure alcohol of the 40%. Said to combine with oils & form soaps (but there must be a decomposition)

Incompatible substances - All the acids, All the bi-salts - Borate of soda, Murat. ammon. - Nit. Silver - Ac. lead
Chloride of iron. Proto & bi-persulphate iron
Bi-peroxide chlor. of merc. Bi-persulph. copper

The most uniform but not the most active operation is that of a refrigerant. This is seldom expressly said by authors, though they say it may be given in phlogistic disease & also in atonic. In very low atonic cases I have seen it prod. irrit. of stom. (i.e. nausea & retching) & impair the tone of the digestive gang.

It can be considered only as an auxiliary to other refig. said to be deobstruent. I think not

Is a diuretic, with dilute S, it has

sometimes considerable power & is more ac-
 tive than Ca , as a purgative. It is rarely
 used alone in dropsy. It is only in
 other diseases that it can be relied on as a
 diuretic alone & it also increases the ac-
 tion of other diuretics. Its operation is
 direct as it has no debilitant power.

In hydrops cellularis it is a useful auxiliary.
 E. & W. say it is useful in passive dropsies,
 probably meaning atonic cases. I have
 never seen phleg. cases - those so called
 having been merely irritative.

More useful in porousia nigra
 than in any other disease.

Its antilithic when the Calculus consists
 of uric acid, cystic oxide, or xanthic oxide
 is effectual as a tonic. It may be
 taken moderately in dyspeps. with acidity
 but less so when (according as the
 bowels are lax or torpid) is better - the
 first being a tonic. Carb. pot. of course
 does mischief in this disease. It is not tonic

Said to be anti-emetic. In most cases it does no good & in many it is actually noxious. I have abandoned its use as an anti-emetic, unless vomiting is occasioned by free acid in the stomach.

Supposed to be antispasmodic & useful in the whooping cough. It is neither

Recommended in paralytic a case

I never saw good or hurt from its use

Stomach - I know of no principle on which it could be of use - So too of Gout, in which the French rec. it.

In dyspeps. without acidity. Remitt. fev. Spasmod. vomiting, - employed by itself or in effervescent. mixt. - better omitted refriger. & in indic. this is not the best remedy, & is often injurious.

Saccharine matter impairs its power. Sugar fulfils the function of an acid & in some cases takes precedence of carb. ac.

Dose 3 4 to 15-20 grs. The French give more - 10 grs to 3j. Give it in

water or mucilage, sufficient to prevent a disagreeable taste.

Do not give so much at once as to disturb the stomach. It is customary to add just enough to colour it & esp. apt. to flavour it & this is regularly given as a placebo by some when at a loss what to do. Placebos are sometimes of use but I never liked them.

Carb. pot. is never given in an efferv. mixt. but in this case we have carb. acid and citrate sc. of pot. as a purgng salt. The usual proportions are Carb. pot. $\mathfrak{z}i$, dissolved in water $\mathfrak{t} \mathfrak{z}ss$. - but lemon juice varies in strength (of no consequence)

If sugar is added it with the acid, or we shall have no effervescence. But the bi-carb. is best for efferv. mixt.

When in known doses it prod. eryth. infl. of intest., tormina, soreness, exhalation, & all weak pulsa

Still 3j has been taken without destroying life. Immediately after swallowing take vinegar & water as an antidote: but if infl. vom. & diarrh. have taken place vom. add to the irritation. Then give oleaginous demulcents, & narcotic antispasmodics. Opium & Hyoscyamus are best. Keep the pat. under a steady & uniform operation of narcotics. Vom. is disturbing the stom. by the quantity of mucus.

Carb. pot. is useful externally applied to diabetes & a Cataplasm of it applied to a felon or a Carbuncle is useful.

Carbonate of Soda 1+1+wat. 10

Call. a. sub carb. Sal sodae. sal alkaline,
 fixa, fossilis. mineral alkali. impure soda
 Barilla is the soda plant potash, and potash

Priz. Cryst. a octahedron Part used as
carb. pot. but is weaker Sp. gr. 1.359

soluble 2 wat. at 60° & 1 at 212° . Effloresces
in the air. Undergoes wat. fusion by heat. so
lution it contains so much water that it re-
mains liquid after cooling, seeming to de-
liquisate & occasionally a suspension of
particles. At red heat changes it to a tra spa-
rous fluid. At ^{very} violent heat drives off a part of
the acid

The same properties are ascribed to it, as to cast-iron. It is, however, less common, & more rare. It has the advantage that it is capable of being cast in any position, after drawing off the water.

1000 10 gms 1/2 (Ex. & Var.) 1000 Rayzi

The common form. for full. is $4\frac{1}{2}$ Efflu. carb. and.

2733i sapo. zi - ol. ceram. m x water g. s.

Soda is used in the same dis. as Potassa
 The old phys. are very partial to it
 I have seen much use of it. Many rely
 on it in paralytica hepatica

Tril. Antimoniate of Potassa
 This is the first of the nauseating saline
 refrigerants. The "Panacea Antimonie" of
 the dispensatorie, accord. to the mod. in
 meth. of prepar. it is a trit. antimoniate of pot.
 Expose "antimony" (the sulphuret?) 1 part & nit.
 pot. 2 parts to a great heat as they will
 bear without fusion, then pulverise & wash
 out the remaining nit. pot. with cold water.
 It a white powder for acid taste
 scarcely sol. in cold wat. very sol. in boil.
 wat. But deposit nothing on cooling ("I do not
 understand this") It contains 11.5 pr. ct. of wal.
 Acc. to Berz. it is pot. 1 + antim. ac. 3 —
 It is commonly thought that the
 antimonates & antimonides are less energetic

& more than 2 refriger., than Carb. ant. .
 It seems to be the case that those ant. or iat. which remain longer in the stomach produce continued nausea, without vomiting are more refriger. .
 The treatment of ant. cannot be readily managed so as to nauseate without vomiting. It is on this ground that the "pulvis antimonialis" of Pres. the composition of which is (by day in the morning) the protoxide of ant. with phosph. lime & the protox. of ant. (the Glass) have been employed.

The *panacea antimonialis* has been rec. in cutaneous eruptions. Prof. S. is inclined to think it a bad medicine. He never did any good with it & has continued it until it did injury. The idea seems to be that anything that act on the skin must be useful. He considers it useful only as a refriger. & diaph.

Prof. S. wishes some ant. in young persons except in this & other cases of

Protoxide of antin. Protoxide of
antin. with lime Protoxide of
antin. & potassa.

The protox. of antin. was
 once much used by phys. under the name
 of "glass of antimony". They made anti-
 monial wine by pouring wine on the glass
 of antin. in substance. This glass of ant.
 is very uncertain in its effects. It is much
 more uniform in form of wine.

It was formerly used as a diaphoretic
 & refriger. in dysentery when all diseases
 were thought to be "hot".

Experiments are needed on these preps.

Tartrate of Antimony

may be taken as the type of all the preps.
 of ant. It may be formed

It is a green, soluble substance, undergoes spontaneous
 decomposition in exposure to air.
 Tests Hydrochloric ac. throws down a

yellow precip. carb. pot. a white prec.

The most important operations of this article are refriger. diaph. & cratic. It is supposed to be deobstruent but it is so only by its evacuant operation.

It is well adapted to entonic diseases but may be used in those which are not purely entonic nor astonic with benefit in many.

In phlog. dis. it is more refriger. & diaph. in nonseating dis. In non phlog. dis, when the constit. is already der. it prod. a leucophlegm, flatul & dry skin, crusts about the teeth & fetid breath. If given freely it produces a more manageable diarrhoea. Its continued use as an alterative has done it.

Physic. used to prescribe it in chronic meor. dis. when they were not so well acquainted with it as now.

Some pat. are more susceptible to it than others & the same pat. is more so at one time than another. Nor is it safe.

will sometimes prod. hyperemesis
 Yet Prof L. has given 25, 40 & 75 grs
 without prod. emesis. But in such cases you
 may produce it by a glass of wine & elixir
 This was soon after the change of diathesis I
 proved that after such change you can
 produce the article was not adapted to the
 cases. 2) of Specac. would probably have
 vomited those persons freely.

To treat an exquisitely phlogistic
 disease (cephalitis, pneumonitis), bleed
 & give a cathartic of salt (sulph. soda),
 add 1 gr. of carb. antim. not enough
 to vomit, which will heighten the refriger.
 effect of the salt. You may add too
 ʒss of nit. silver which will greatly
 heighten the effect. You may treat
 any phlogistic disease in this way.

Laxative Saline Refrigerant

Duodroxalate of Potassa

Bin-oxalate of Potassa

Called *Sal oxalis* - *sal limonium essentialis*,
(yet it contains not a particle of citric acid)
potassa oxalis acidulus - *sal acetosella Phil.*

It exists ready formed in *oxalis* a
celtice & probably in all the spec of *oxa-*
lis - also in *rumer acetosa* & *r. acetosella*

It is formed by dropping a solution of potas-
sa on a saturated sol. of *oxal. a.*

The bin oxalate is formed precipitates
if too much alkali is added it forms
an oxalate which is not in solution

Bin oxalate of pot. has a bitter, pur-
gent & acid taste. It is not affected
by the air. It unites with alkalis &
earths & forms salts of a riper character

It is a popular article in fevers

but is proper only in the tonic
 It is called a small wooden vessel & called
 'the essential salt of lemon'. It has been
 applied to sore ulcers and promotes
 their healing hence called antiseptic.
 Prof. T. has applied the bruised leaves
 of the *Crataegus stricta* & *rupestris* with
 advantage but there are better
 things. It might probably be of ser-
 vice, chiefly as a grateful beverage in fevers.

Malate & Bimalate

Potash, Soda & Ammonia

Malic acid met with in it. It is
 in the berries of the *Crataegus glabra* in the form of the
 bimalate of potassa. Some varieties
 in the form of a tartness in the
 It is a grateful beverage in fevers.

Acetate of Ammonia

Called ammon acetate *Ammoniae acetat*
Sal ammoniac acetosum *Sal ammoniac acetat*
etale. The solution is called *spiritus*
medicari *liquor ammoniae acetatis* *rhig*
amm. acetatae of which the former is proper.

It is supposed to be thin, because it is
 light. It is not so.

Don says the acid and alkali. It ^{should} be
 be concentrated to form the best article.

It is too volatile to crystallize readily, but
 by gentle evapn. acicular crystals are
 obtained (8 by sublim.) 1 1/2 inch in length.

Taste - first cool, then sweet, finally it
 united taste of sugar & nit. potassa, but it
 has a distinct taste by the nit. potassa predominates.

It is very deliquescent, melts at 170°
 subliming at 250°.

Distilled vinegar should be used & it is saturated, with
 the solution of ?) *agua ammonia*. Adding *essence* *essence*
amm. is a nauseous & inelegant mode &
 should not be used, as the salt is less pure.

ful and either the acid or the alkali will predominate & sometimes I have tho't I could taste both (I know not the reason of this)

If used in Camma & Antonio phlogistica it moderates the heat & dryness of the skin & diminishes strength of action (Yet Swedens. calls it a stimulant)

It is a good refrag. & stands next to int. pot. & soda. It is not mercurial - It is called diaphoretic, but is so only by operation phlogistic diathesis, the heat & dryness of the skin being removed & perspiration ensuing.

It is diuretic in diseases not much phlog. nor laborally. atonic, with diuretic operation, but it cannot be relied on in dropsy. If there is paucity of urine it restores it - In the natural state it augments it moderately.

It is not deobstruent. When Swed. assigns it this power he means that it is refrigerant.

Diseases. Reconn. in "simple fever general". It is fashionable in Europe to treat simple

fever as a unit. It is never useful in
 efflu. It is useful only in active infl. gen.
 Rec. in the phlegmasia - useful in the
 phlegmonous ones, not in the atonic or
 erythematous - or atonic arthritic
 Swed. says it is useful in the atonic ery-
 thematic. I never saw any other. The
 supposed phlogistic cases are irritation &
 in these the article is improper

For a dose Swed. gives $\mathfrak{z}\text{ss}$ to $\mathfrak{z}\text{ij}$ of the solid.

I give $\mathfrak{z}\text{ij}$ I never saw it too much

The laxative power is less prominent
 in this article than in any other phlog.

Acetate of Potassa

called acetate of pot. - sal digestion
 the most common name, Tena foliata
 tartari - Tartarum regeneratum. Kali
 acetatum Kali acetos - Sal digestivum
 Silvii.

Longer known than any other of this class
 except nit. pot. Add carb. pot. to
 distilled vinegar.

Citrate of Potassa

The citrate of potassa, soda & ammonia
are all used, and are very frequent
to be used. Citrate of pot. is called
mixture of haister, *sericus Rivesii*

It is formed by adding sol. of carb. sol. to
citric acid till it is saturated, & allowing it
to settle.

It is very fashionable in London & Boston
for ~~the~~ ^{the} ~~use~~ ^{use} in cholera infants, or in an
atonic disease, increasing the vomiting & purging.

It is most used as a diuretic - being superior
in power to acet. ammon.

Taken during effluvia it is effectual in
alleviating & ~~in~~ ⁱⁿ ~~the~~ ^{the} ~~case~~ ^{case} or those
atonic & ~~atonic~~ ^{atonic} ~~protonic~~ ^{protonic}

It is better than acet. ammon. - Not so
good as nit. potassa

Nitrate of Soda

Found native in various parts of S. America.

I consider this a refrig. process in the same manner as nit. potassa, but in a much less degree. It is said by late writers to be laxative in doses of $\frac{1}{2}$ to $\frac{1}{4}$ j. I^d to be detergent, but I think in no other manner than nit. pot.

Much used in Germany. Dr. Wierch. wrote on it.

Refrigerantia acida Vegetable Acids

Vegetable acids may be divided into 3 groups

- 1- Those which exist in veg. in a free state or combined with alkaline or metallic bases.
- 2- Those which are never free but are always combined with veg. or ab. bases.
- 3- Those which are the product of decomposition.

The first group comprehends all the refriger. acids exc. the carb. - They are the acetic (called also acetous & a modification of it the pyroligneous), Citric Malic (or Malic) Tartaric (and a modification of this the pyrocitric etc.) & Oxalic (or oxalic). The Carbonic sh^d be placed here from its properties. The second group are supposed to possess any medic. power. Examples are the Meconic of opium & the resin of Cinchona. The 3^d group are supposed to be nervine. There are but 3 of them Benzoic, Succinic & perhaps the Camphoric.

Acetic Acid

This is susceptible of a greater variety of applications than any other veg. ac. & possesses all the powers of the others.

There are 4 species viz. *Acidum aceticum purum*, *Acid. acet. dilutum* (distilled vinegar), *Acid. ac. enpyrenematicum* (pyrolog. ac.) & *Ac. acet. in purum* & common vinegar.

Pure acetic acid is very volatile & its vapour is inflammable. It is obtained by

The strength of vinegar is determined by its power of neutralizing alkalies. It is found free naturally but it is obtained for use by fermentation & veg. decomposition - In the U.S. from cider - France from wine (*Acetum vini*) England from beer (*Acet. bivi* or *Stygar*).

This acid has been longer known than any other mentioned by doses. Its an-

be obtained by the destructive distillation
of veg. matter in form of pyro. acid
This or common vinegar may be purified
by digesting & afterwards filtering it upon
charcoal (animal is best) & then distilling it
This forms *acetum dilutum*, formerly
called *acetum acid*. It is contained in
the juices of several plants, free or com-
bined with alkalis e.g. in the *Phoenix dacty-
lyfera* (date tree) *Vitis vinifera* - *Sambucus
nigra* - *Galium verum* - *Cicer cre-
ticum*. *Rhus typhina* &c. - but not in
Larrea guaiacalis

It is a pure refrigerant - adapted
to antonie diseases, abating heat & thirst &c.
It has been given in typhus, & in
scorbutus, because there is heat & thirst, & sores
Cadaverous smell &c. & the patient craves
acids - but in such cases the min. acids
are better. The heat requires antiseptics
the sores, Cadav. smell &c. & the low
state of the system requires astringents

Acetic acid will produce morbid irritability of the stomach & intestines, retching vomiting & diarrhoea, exhaustion & a tendency to sink at one of the critical periods. These effects are gradual, therefore not always observed. So of all the veg. phlog. & exanthematica & all dis. of putrid type

It is not stimulant nor astringent
Said to be antiseptic - I think not, because it must contain veg. matter in solution to be of service in surgery. This is the reason why plants of the ^{order} Coniferae are useful
Antiseptic only in dead animal matter
It may prove to gangrene from excessive phlog. action

The veg. acids are said to be narcotic - perhaps they are after the narcotic is removed from the system. Some narcotics are heightened by them while they remain. No narcotic is unquestionably diminished in power by them.

Said to be antispasmodic. This depends on

the state of the system of stomach
 Said to be diuretic & diuretic - only
 indirectly is it so "Locative" most
 acids move the bowels - acetic, slightly only
 "A remedy for polyseria" - indirectly
 so in such quantities as to injure the di-
 gestive system - spare diet is better

A sparing use of ginger in food
 is wholesome, especially, in assisting to di-
 gest oily food. For laboring men in warm
 weather, wine is largely diluted with
 water; syrup of ginger added, is a very
 pleasant & healthy beverage & far better
 than ardent spirits.

Externally it is refrigerant &
 astringent & may be made to be rubef-
 facient. Combined with water & alcohol
 is certainly - ting - used as a lotion
 in all kind of erythem. infl., & cold
 from hot water - malig. sore throat - tu-
 mescence from sprains & contusions -
 ulcers & nasal hemorrhages &c.

It is held to relieve syncope. It is supposed to destroy specific contagion & is applied to the head of carabasses to form small pox. But this is rather a chemical & mechanical than a medicinal effect.

It is liable to change & decomposition with the ordinary form of vinegar, but the last smell & appearance will be adequate but

It is used in pharmacy as a solvent

& the powers of a few articles are heightened by it, as colchicum, which contains the bi-gallate of veratrine & the acetate of veratrine is more active. So the acetate of sanguinaria is more active also that of morphine is more so than the natural salt of morphine which exists in opium.

But most articles have their powers impaired or destroyed by it. The preparations are rancid, and liable to decomposition, even with a considerable addition of alcohol.

The following are used viz. Acidum aromaticum, Acetum scillae, &c.

Chici, *A. vesicari* (2 species), & *A. sanguinalis*.
 As prepared from juice taken it is
 uncertain & sh^d not be used for these purposes.

Citric Acid

Next in importance to the preceding
 found abundantly in the genus *Citrus*, of
 which 3 species are described: *C. Medica*
 (Citron - South of Europe) *C. Limonum* (Lemon)
C. Limetta (Lime) - These contain great abundance
C. Aurantium (Sweet orange) *C. vulgaris* (Seville
 orange) *C. vulg.* var. *myrtifolia* (cultiva-
 ted in our green houses,) *C. decurana* (?) (Shed-
 dock) All these contain citric acid &
 the other species.

Citric acid is contained sparingly in other
 genera, as *Oxyococcus*, *Europeus*, *Cerasus*, *Pada-*
us (wild cherry) *C. hortensis* (~~our~~ our old
 fashioned rose cherry), *Solanum dulca-*
mara, Fruit of *Rosa Canina* - *Ribes*
rubrum. *Vaccinium myrtillus* - *Fra-*
garia vesca.

Citric acid is one of the most expensive
but most pleasant. The juice of the or-
ange ^{fruit} ~~acid~~ is preferable to the concentrated acid
in fever &c.

Malic Acid

Obtained from apple, ^{or} ~~in~~ Considerable abun-
dant, in which it exists really mixed - in
greater still from the leaves, of Sen per-
vian. tectorum Sorbus aucuparia
of Europe, Sorbus, americana (juice of the
fruit) Most abundant in the red
of the fruit of K. glabra - for me-
dicinal purposes, macerate the berries in
hot water & strain - The acid thus ob-
tained is ^{more} than the juice of lime, &c.
for fevers.

Tartaric Acid

Obtained exclusively from the fruit of
the *Urtica vinifera*, in which it exists
in the form of bi tartrate of potash

Now wine contains it in solution & deposits it by precipitation on the cask. It is taken from there & crystallized to form the officinal tartar of potassa or cremor tartar.

The true tartar is not recognized in chemistry now.

The "acidulous syrup of lemon," consists of tartar. $\text{oz. } \frac{3}{4}$ - Essential oil of lemon (rind) mxx - white sugar ℥xxxvi - boiling water ℥xxiii .

This constitutes the lemon syrup of the shops.

If too much oil of lemon is added it gives the taste of rotten lemon. There sh^d be just enough to give it a taste in water. The "Salt of lemon" is bicarbonate of potassa, g. v.

Oxalic Acid

Exists in the form of bicarbonate of potassa in the Oxalis americana - acetosella, stricte, violacea, & probably in many others.

It exists in smaller quantities with some combinations in Rumex acetosa & acetosella.

in the juice of the stems of *Rheum rappon-*
bicum (pie plant) *Parvill.* in *R. palmatum*
 & *undulatum*. The acid of the *R. rep.* was
 formerly thought peculiar & called *Rheo ac.*

The citric is the most agreeable acid
 then the oxalic, then the tartaric least
 of all the acetic. The oxalic is more
 active than the others & is probably the
 most powerful refrigerant of all.

The effects of these acids in excessive
 dose, are irritation followed (if a suffi-
 cient quantity has been taken & not re-
 moved) by erythematous infl. & there
 may be ulceration & sphacelation if not
 immediately fatal. The symptoms are
 nausea, vomiting, pain in abdomen
 & all very pulse &c. The oxalic is the
 most poisonous, next the tartaric, then the
 citric.

Immediately after swallowing give carb.
 foot. lime, or magnesia & if not
 given immediately, ^{they} may lessen the evil.

but however are preventing, not antidotes,
to obviate the effects we must give de
mulsents & opiates.

Carbonic Acid

It is said not to be capable of being inhaled
It is so if pure, but when much diluted
it may be, & will & diminish irritability
& produce first prostration, then exhaustion
paralyzing the muscular powers & pre
venting all effort to escape, & inflame.

The remedies for asphyxia from this
gas are a free supply of good air - dashing
cold water over the whole ^{particularly the head} body - friction,
stimulating energetically - artificial inflation
of the lungs with good air.

Medicinal operation - All
most all the books call it "stimulant, tonic,
diaph. direct. & antiseptic" Copying
from each other. When I commenced
practice I supposed so, but have found
by actual experiment that this is not true.

It is injurious, in atonic cases, & did not
 aggravate phlogistic ones. It gives freely
 in the form of carbonated water which
 an evident & decided refrigerant, dimin-
 ishing vital energy & strength of action &
 of morbid heat, restlessness, irritability & ex-
 citation. It is a decided but weak
 refrigerant - beneficial only in acute
 atonic diseases. It will correct the
 fetor of the alvine evacuations. It
 is analogous, in its effects, to the vegetable
 acids. I have a letter from an old
 physician confirming my statements.

Boeric acid (nerve?)

Prunella

Thurday

109

110

112

Rhus venenata - not the *venix* which is a native of Japan - like *R. Toxicodendron* is useful in palsy, dyspepsia & many diseases - is no more manageable than any other article & is no more poisonous to the system. The other species of *Rhus* are acrid but this is the best - as *R. paniculata* is probably preferable to *R. Toxicodendron*.

R. radicans is not inferior to *R. Toxicodendron*

Alcohol

Described by an Arabian chem. A.D. 430. He ascribes the discovery to Arnold de Villeneuve of Montpellier in the 14th century

When strong turns with a blue, when diluted, a yellow flame Sp. gr. absol. etc. 796 or 2
Sp. gr. etc. 35 or 2. B. & C. Take a vial and its exact weight & soak it with a diam.
Pour to it 1000 grains distilled water

marked height Alcohol up to this is a
 1st a. eq. 835 grs.

Alc. dissol. pot. from lithia & the veg.
 alkalies, not in the earths. Generally all
 the salts which are ~~very soluble~~ ^{very soluble} in water
 are dissol. in alc. or very sparingly sol. are
 also dissol. in alc. The efflores. salts are
 solub. in alc. The deliques. are also, e. g.
 the carbonates of potassa

Alc. also dissol. sugar resin, mastic, bal-
 sam, camphor, essential oils

Alc. dil., eq. p. t. wat. & alc. 2nd p. t. 835

The peculiar properties of alc. in different
 forms (as spts sacchari, spts P. & B.
 P. & B. are said to be mixed with oily
 matter always present & to a little acetic
 ether. The former may be removed by re-
 peated distillation & canalic pot. or as we
 will remove both. The carbonated alkalies
 do not act with efflu. mercury

Alc. is 2^d to be the same from whatever
 source produced

H.C. is stimulant nerve & narcotic
It differs from wine in producing an effect
internally also, when it produces a vital con-
traction of the solid diminishes & abolishes ir-
regularities of sensibility & creates a
state of the soft parts & relieves pain

In many states of the system the use of
wine & of H.C. prod the same effects - but
there are considerable differences in certain
states. It is not tonic & does not much room
for discussion & there wine & H.C. & between also
differ. Greater effect on the brain is pro-
duced when atmosph. press. removed as
in ascending high mountain - also on an
empty stomach

It does create a positive increase
of power when indicated & by man-
aged, it is not followed by exhaustion

It is not a poison in a popular sense
of the term i.e. in small doses

Wine is indicated in non-malignant
in phorid & cancer &c. in low malignant
cancer is better in the putrid type, also in

in the nervous. The mode of preparation
or the use of stimulants will make a
difference - if Cal & op. are not given
in the early stage, alc. will disagree.

latter & perhaps wine & the support-
ing agents will disagree also; but if
Cal. & op. be given at the outset & afterwards
continued alcohol will agree
well & so strong a stimulant is indicated
upon it. Wine is indicated in
chronic diseases & in acute with consid-
eration, but alc. is admissible in
very few chronic cases but is particularly
appropriate in acute diseases with ex-
~~cessive~~^{extreme} ~~debility~~ ^{exhaustion}

? toxication is in no case a
stimulant operation, but in some a
narcotic, in others a nervous, & in others
both. It is not settled to which influence
should be attributed. I am inclined to
think the resolvent effect of alc. attrib-
utable to its peculiar narcotic power.

the purest, narrow or
 interest. Perhaps we must consider
 Del. to be the egg of its nervous
 & diseases of the liver of the nervous
 & am not certain

The external marks of this per-
 son are, are glazed eyes, bloated face
 red nose, livid at corners, livid
 & tumours of the muscles, emac-
 ciation, peculiar cutaneous eruptions &
 preternatural old age. The effects of the
 mind are inability to fix the attention, vaci-
 lation of the memory & judgment, irreso-
 lution. Convulsion. Patient ultimately drops
 dropsical paralytic & dies. etc. deranges the
 digestive organs, & par-
 ticularly affects the liver. Some, fed
 in distilleries are subject to enlargement
 of the liver. The same is proved on the
 human subject. In constant irrita-
 tion on the digestive organs causes a

determination of blood to the viscera, but
 produces congestion of fl. & paralysis a

The particular diseases produced by the use
 of wine are a Peculiar sort of dyspepsia (differ-
 ing from that produced by alc. & other causes,
 Gout, Calculous diathesis, & sometimes Si-
 lithis renalis or gravel. These are called the
 the diseases produced by the use of fermented

The habitual use of alc. produces
 the habitual dyspepsia of a different form
 & terminating sometimes in membranous phthi-
 sis, Simosis, syncope, &c. Paralysis a to
 especially of the liver. A peculiar kind of
 cutaneous eruption. Obstruction of phthorosis
 tarsi Hypochondriasis Tremor tremors
 A peculiar sort of convulsion, called "Cru-
 ke hysterics" Delirium tremens Cor-
 ruptio dropsy Paruna mellita & Diabetes
 Impotence Paralysis & sometimes Cat-
 ocanis, &c.

all the disea-
 ses that are the peculiar effects of alcohol
 in cases of intemperance from severe

exercise, the mind & health, alcohol is a good remedy. So if a person subject to rheumatism should accidentally get wet through, a good draught of brandy will almost invariably prevent the rheumatism. So too if persons, predisposed to pulmonary complaints, which exposure will bring on so of course. So too an attack of an epileptic may often be thus prevented. Yet it should undoubtedly be far better if they were confined to the shops of the apothecaries.

herapetite appl. of acc. & wine
in dyspepsia. - It is bad practice & should be avoided. Wine is better, & it agrees. It may be used when there is extreme exhaustion & bring the patient within the proper range of susceptibility to other medicine.
Diarthrosis. It has succeeded when it was simple & idiopathic. I consider the species of *dart.* is only varieties. I except *D. tubercularis* which is a membranous infl. & *D. gypseus*

which is a ~~symptom~~ of dyspepsia. 1 pint
of a weak diarrhoea.

Cholera - a temporary rise in the beneficium
Generally in the pat. is called the pat.

, reduced very low pulse weak, quick for
Cold extrem. of the stomach. Have a small
quantity of ^{malaga} especially if hot will often

• Stop the vomiting & diarrhoea & palliate
the disease. Opium is more effective

but some cases require alc. in addition

Avoid giving a great bulk for this will
cause vomiting

Intermit. & Rem. fever - Wine & alc.

• often useful. These may be 1st of the syn-
ochus or sub putrid type 2nd of the ner-

vous or exguis. or in t. nervous 3rd of the
putrid or biphys cravior type. When of

the synochus type they are never really
want. Wine & alc. are never necessary

unless the case are protracted protracted

• & or in down. In the nervous alc. is pref-
erably to wine but wine is better if

putrid if not malignant & low, otherwise
 alc. But these are to be considered as
 auxilioris, when the system has been pre-
 pared by cal & op. alc. is more appl. at the
 2 agrees better. This is obviated it is
 which alc. would otherwise produce.

ictus melaena - Heavy Cases, will
 require either wine or alcohol. Sometimes
 they will agree, sometimes not give
 with either

Typhus in all its forms when malign. alc.

non-malign. wine answers very well

When run on to a low state, alc. or wine sh^d
 be given acc. to the degree of exhaustion
 the previous treatment & the type

The cases require either wine or alc. when
 in a low state. *Apostema* when low

Anthrax, when system is much affected & low

Either a ^{gangrene} oedema t. erysipelat. & anaton.

in the same cases as the preceding. *Stroph*

Parithritis maligna

Malignant variola rubecula & scabie

Erythematia (Phlogotica ^{or. viscerale in fl.} - may or may not be present. When approaching to erythema phlegmonos they are not. If to e. gangren. they are necessary in the early stages. In the arthritic wine ^{& alc.} may be highly useful. Arthritic Infl. has acute, subacute & what is called chronic i.e. intermediate between rheum. & neuralgia. All these forms may affect the viscera. In the advanced stages of any of them, if there is a spasm of the bowels & wine may be useful.

Membranific Phlogotica I have not seen a case of croup this winter (1830) in which alcohol has not been employed by others as well as myself. This does not supersede the use of ex. cal. & deobst., but they fail without alc. in some cases - or the dis. may run into a low state & then alc. may be required.

Inflammatory Phlogotica very often occur in General acute febrile dysentery - Often

indicated at the outset if malignant -
also if run down into a low state etc.
generally is better than wine

In many of the dyssthetica they are im-
portant auxiliaries e.g. *Masasmus*
labes (not so much in *M. atrophius*) es-
pecially var. *venenata* from lead &
mercury. *Porphyrus hemorrh.* (in a sangu)

if the case is serious they are highly
useful In severe cases the more intense
astringents, powerful tonics & diffusible
stimulants are highly necessary

Gangrene especially *G. sphacelus*
Entasia Tetanus - their propriety has
been controverted. Dr Hosack thinks every
thing depends on giving them just to the right
point & that more or less will fail - his
cases would not ^{have been} ~~be~~ called tetanus in Bonn.
- they were slight spasmodic diseases &
would have ~~done~~ got well without any treatment

In genuine & severe cases we can trust to
neither for a cure. In all cases such cases

have been treated with sat. sol. in very large quantities, sufficient to keep the bowels open & alcohol. Practice that a mild electrolytic life commonly in health maybe said to be effectual in violent disease. This practice seems to be judicious & judiciously managed Arsenic is considered the most important part of it. Opium sh^d be used largely at the same time.

Sassa Camina - proper if great exhaustion
Chorea if great exhaustion

Chlorosis atonica - wine with some limitation

Dropsy - Stimulants are not incompatible with digitalis. In some cases to use nothing without stimulants & then will act salutarily. They are those attended with exhaustion - pulse weak & feeble extremities cold - powers of life considerably reduced Bites & Stings. The testimony is complete as to the efficacy of wine alc. & opium

The practice is as old as Celsus - perhaps Galen (I see my notes) Celsus rec. vinum cum pipere.

External Use of Alcohol

Dr Lves uses, alc. 3j to 3ij ol. orig. in scalds & burns & prefers this to ol. pin. He uses it before vesication, which it prevents. If applied too long however it may produce it & be as bad as it cures. The least of sufficient applic. is the relief of pain without its returning on suspension. If the skin is removed, the burn extensive & exhaustion & irritation great, the same mixture is recd. topically.

Some forms of indolent Tumors - if early applied, it may discuss them

Vapor bath of alc. (~~Perforate~~ ^{Support} the bed clothes by a stick) probably some of the alc. escapes combustion & passes up in hot vapor. This bath does not fatigue the pat. - does not make the bed damp like boiled cloths. Useful in secondary stages of Colica Green & Rhuch. in Diarrhea Cholera Scleris Melæna Choleliths, many Simosis gastralgia Malignant Intermittents & Typhus.

Wine

Vitis vinifera - nat. or. ampel. D. C. *vinif.* & *vitis* for
Native of South Asia. Brehaver derives the
word *vinum* from *vico* to bend or twine
It is from the Celtic *gwyd* (pronounced vit)
vine, *vine*, *vinea* *gwin* or *vor* &c. - all
from two Hebrew words signifying fountain
& to press out. R. & Schultze describe 1 or
2 or varieties of *Vitis vinif.* Wine does not
exist in the grape

The great Divisions of wine are alba & rubra
Other divs. are acidula or Rhenish or Hock
dulcia or Frontinac Malaga Tent Tokay Cape
austera or Portugaleis or Port, mitia i.e.
not acid sweet nor austere, or Cherry, medici-
na, claret, Burgundy champagne.
To these we may add *vinum pomaceum* or
Cider & *v. pyracum* or perry

Wine is mentioned in the works of Hippocrates
in the treatment of Typhus

It is a stimulant, nervine & narcotic

It allays the intense stinging heat of typh.

gravior ~~more~~ as infallibly as *Causa* is relieved
by depletion & refrigerant. It promotes pers-
piration when defic. & restrains when excessive
It allays irritation, jactitation, pain & wakefulness
— all in atonic diseases

Excessive quantities produce vertigo, Delirium
or Coma followed by languor, headache, nausea
vomiting & sometimes diarrhoea

For diseases prod. by it *vide* also. It is an
undoubted fact that a free use of wine di-
minishes the susceptibility, to diseases both
entonic & atonic

The power of wine in allaying irritat. sensibility
increased freq. of ~~and~~ restlessness watchf.
pain &c. is the joint effect of its 3 powers

There is not properly a tonic though it can-
nevertheless *vide* also. to being one.

White wines contain water, be least pot. & col-
ouring matter. Sweet wines contain ~~also~~ sacch-
mat. & Red wines, a little tannin. But these
mixtures cannot be imitated by art. The
properties of the factitious wines are those of

their alcohol Hence I consider the
 active principle a distinct comp^d of
 the ponderable bases of prot^{ox}. ^{-oxycarb^{on}}hyd. & water
 in equal proportions, so that wine dif-
 fers from alcohol as essentially as that from
 ether I think it probable that hereafter
 it will be found that the active principle
 of ale & cider is 1 prot. carb^{on}. hyd. + 2w
 But it is known the brewers add various
 narcotics to beer to make it more in-
 toxicating

Phosphorus

This article stands next to alcohol in the quickness of its operation. Alcohol acts sooner than any other stimulant. Phosph. next to the Cantharides, but neither of these two can be relied on as a quick stimulant in cases of emergency. Ether (considered a stim. by Prof. S. in 1830-1842) Capsicum, & the essential oils are sometimes in operating.

Phosph. is I believe found in the veg. as well as in the min. kingdom. It is soluble in caustic alkalis with heat & probably unites with their metals, as it decomposes water.

It is not decided whether phosph. acts on the nervous syst. through its medium of the m. m. of the al. can. like ether or whether it acts on the bloodvessels like Capsicum, Cantharides, ammonia &c. Probably it acts in both ways.

It is said to be nervous & diaphoretic. It cannot however be used as such.

Dr. Lees gives it in low stages of exhaustion &c. In more torpor without exhaustion it is improper. Extreme irritability, though there may be ever so much exhaustion contraindicates it. It is only when the part is in a low state & the danger remote that it can be relied on & not at a sudden sinking at a crisis, as of yellow fever. When there is morbid irritability it is increased by phosph. Dr. Lees uses it when the action of the disease has worn out the sensibility of the system - phosph. thus occasions a new supply of excitability & raises the part in the article of death. This is contrary to the Brunonian theory but it is strictly true. Dr. J. thinks phosph. less favorable when there are topical affection. He thinks it excites appetite especially for animal food. Svedenborg thinks it aphrodisiac - if so it would probably be from its stim. powers & in exhausted states of the system.

Phosph. ph^a never be given in substance
either in pill or emulsion as it w^d occasion
top. infl.

Sulph. ether rectified by
any chloride of lime is said to be the best
solvent

~~now~~ - 3j will hold 6j of phosph. in sol.

Sec. to my experience the ~~oil~~ oils are
the best solvent. R. ol. oliv. purified &
heat it with an excess of finely cut phos. Keep
it well stoppered. When used add a little
spt. ann. to give it a creamy appearance
& the patient will not know that he is taking
oil, at which we have a disgust. Sugar
with ol. cinn. sc. makes it palatable

Take it unmixed. A teaspoonful
once in 3 hours is a dose of the saturated oil
This was given in an extremely low case
when a powerful dose was indispensable
Continue this dose until the system is
roused & then diminish & continue

I have used it in no other than low
cases. A small dose repeated is
the only proper mode of exhibiting

stimuli in low states of the system the
less the of lesser

Phosphorus if properly used is not dangerous
& in low states of the ^{Exhaustion} system we have no sub-
stitute for it.

Phosph. has been supposed to retain its
medicinal powers in combination. This
may be true of the binary com^{ps}
of its salts. Tincture of phosph. acid is used
as a substitute for phosph. but that it has
the same power is I think more than doubtful.
It is formed by exposing phosph. to the air, when
it liquefies from the moisture in the air.

Sir H. Davy thought this substance a mixture
of phosph. acid phosphoric & phosphorous
acids. Dr Luss's dose is from 10 to 30 grains
in water. 3 times. I have not used it.

Particular forms of dyspepsia. affec-
ted with great torpor & insensibility &
little irritation are relieved by phosph.

In a form of dysp. with epigastric sinking
Sir. Cardiac or Symp. of Good - par

oxygen every day - sense of faintness - dis-
 ease at stomach, aggravated by exertion
 both bodily & mental - here phos. is of more
 use than any other remedy, unless alc. or
 a pinum, which cannot be employed in chron-
 ic cases - Opium - not so dangerous, but
 phosph. possesses superior power (preluding)
 Simosis albicans (white jaundice) also
 Scad coli with great exhaustion - here
 ph. is the only remedy that will ^{succed} ~~relieve~~
 Icterus, Melæna of blood - occurring
 in broken down constitutions, secretion of
 bile deficient & differing from jaundice
 in being attended with exhaustion of digestive
 powers - the skin is livid like a bronze
 yellowish green - Cases from the south or
 intemperate persons. Common remedies
 do no good. Active stimulants must be
 conjoined with acon. - Cal. capsic. or ph.
 with Cal. or better Corrosive sublim.
 Malignant Remittent & Intermittent of
 trop. clim. & some - among us, &

the low stages of all atonic fevers, malignant or not, when vit. energ. are low
 Delirium Trem. - Here Phos. is a powerful auxiliary. In some cases opium alone will not succeed unless the vital energies are roused.

Malignant Continued fevers of all kinds, whether with primar exhaustion or that produced by the disease Plague - Typh & Anthrax - involving the whole system
 Pneumonitis - that kind which Good says will not bear emetics &c. In that kind of pneumonia Confined to the living membrane of the bronchiae, with infl. like that of the intestines in dysentery

Malignant rubella & rosalia

Atonic small pox

Tubes - var. dorsalis. It has been particularly successful in T. venenata from lead merc. & arsenic

Impotency

Certain Cases of dropsy Diabetes

Passive hemorrhage by Dr Lues

Gangrene & phacels & necrosis of G. & D.

Bad cases of land scurvy

Thermopsis atrica - *Agerisia* in polar,
var. *atrice* thought to have especial power

Poisonous effects of Phosphorus
Violent burning pain in stom. & intest. Allu-
cious taste in the mouth Obstructed respiration

lencing, hiccup extreme exhaustion Pulse
very hard & small towards the close Convulsions
death. The stom. & intest. are inflamed

& sphacelated. The er. fl. is erysip. not phlog
which would spread to the other coats

If called early give an ex. of op. or
dil. zinc. If ~~the~~^{phos.} has passed down give cast.
oil in wine glass doses with a drop of croton
oil if necessary. Orfila rec. magnesia to
neutralize the acid. I think the acids produced
have no share in the mischief. Op. sh^d be given
sufficient to allay pain & spasm. No other
remedy is needed. Antiphlog. rem. are
injurious. Deriv. cuts may be useful but
not in quantities sufficient to produce distention

Medical Jurisprudence

Either the infl. of stomach Pure phos.
 or ph. acid in al. Canal — no other mark
 decisive. If it has been given in oil it
 will not be precipitated if in ether it
 will. The appearance of phosphorous acid
 is not a proof of poison (as I think)
 for they are found in dyspepsia &c. & are
 an ingredient in the human body. Minute
 particles of phosph. must be ~~the~~ detected
 by the eye & by their white fumes, odor
 & luminousness.

Arum triphyllum

To synonys - *Aroides* (Juss.) *Piperitae* Simm.

Possesses a peculiar acrid principle, volatile, inflammable - dissipated by drying, air heat & even by pounding in a mortar. It is not soluble in milk, oil, water, alcohol. viz. eg.

I know of no solvent. Root contains $\frac{1}{4}$ part galls.

This root produces a strong prickling sensation on the tongue & almost vesicates it. Applied to the skin it vesicates.

In the stomach it produces heat, nausea & a prickling sensation all over, & spasms, which extremities are among its effects.

When dry it is weak like starch, but sometimes retains a little power. The root is the only part used.

This root is an acrid excitant with no other power. It is an expectorant & diaphoretic by virtue of its stimulant power; when dry it is demulcent & nutritious.

Externally it is discutient, but rarely used.

It is allied to capsicum in its powers.

Medicinal dose - 16-30 grs. If recent 16 grs.

unus pro sufficiens, repeated once in 2-3. 6 hours. For an emulsion, beat in a mortar with milk or sugar. Barton directs a confection by boiling, which destroys its power.

For extern. appl. Beat with oil & apply above. It is rubefac. & vesic.

To keep it with unimpaired strength lay it in sand. It is inferior to Capsicum. Milk, mucilage or Oil most conveniently allay its effects.

Diseases - It is put into a decoction with Stygion as in Epilepsy. Dysphagia from spasm ^{& that} from semi-partial. of muscles of deglut. This given with success in flatulent colic.

Other species of *Arum* have the same properties in different degree, as *A. Dracontium*, *Calla palustris* - less active than *arum* but similar.

Secotia Virginica - The strongest of all the *aroidae* - acrid & mucilaginous.

Arum maculatum is the off. spec. in Eur.

Ictodes fetidus

Formerly called *Arum Americanum* (Catesby),
Callagagagnathus Goum. *Dracunculus fetidus*
 Linn., *Poskus pictorius* (V. & Bart.) *P. foetidus*
 (Lyned) *Synplacanthus foetidus* (Salist.) *Spartoc-*
ne *foetidus* (Rafines.) *Ictodes foetidus* (Bigel.)
 Every part has a fetid odor, depending on
 a volatile princ. - probably a volatile oil, but
 it has never been separated. It is more per-
 manent than the active princ. of *A. triphyll.*
 It has resinous & mucilaginous bases at its
 acid & odorous properties. The seeds
 have an animal odor & contain a fixed oil.
 The root and seeds are the parts used, but
 the seeds are preferable. They retain their
 vital principle for years & their medici-
 nal virtue as long. The root loses its
 strength by drying.

This plant is a powerful excitant like
Arum. It acts on the alim. canal &
 does not affect the circulating system
 immediately. It is a nervine, like *asa-*
foetida. Very large doses occasion

vomiting, headache vertigo & sometimes a temporary blindness It is probably not a narcotic

Of the dry root 10-20-30 grs every 2-4 6 hours may be given. It may be formed in a confection or better, ^{may be taken in} solution in molasses, & water Dry it whole & exclude the light

It is doubtful whether the leaves are any better than Cabbage leaves but they have no offensive smell as Cabbage has after topical application (the

Uterus & applications similar to Arum maculatum - it is not so powerful but it is better in flatulents & colic than arum as it is less

Oxypneues acerbus - It has more reputation in this than in any other disease Repeat it every 10 min. until it produces vomiting or relief. The vomiting itself is of service To prevent the recurrence give 4 doses a day *Oxypneues* seems

to arise from paralysis of the gastric branch
of the par vagum & is relieved by Galvanism
Chronic rheumatism - by a continued use
like guaiacum & capsicum

Convulsions particularly hysteria

(Paralysis Cessation)

Dr J. rec. the limb in Phleg. dolens to be
wrapped in the leaves all over (as a st. ooth app.)

Acorus Calamus

Not like a mixture of cinn. & pimento in
proved by drying. Essential oil can be
obtained. The bitter principle is extracted by
water

It is an acid aromaticulant, with
some tonic properties

It is not inferior to cinn. & nutmeg in
virtues & oil. The dry powdered
root is an excellent eroline

Is used for economy where cinn. & nutmeg
cannot be afforded & were it as dear
would probably be as much esteemed.

Essential Oils

There are 1. Pure Stimulants 2. The milder oils as ol. anise, a pure nerve 3. nerve & narcotic or stimulant & narcotic

The Serebenthinate oils are of deobstone &

Articles containing the oil are often used in a crude state, if it is in abundance e.g. Cinnamon cloves

Monarda Punctata (Willd.)

The most acrid & pungent of the essential oils its flavor resembles that of Thyme or Satureja

It is an elegant & pure aromatic & stim.

Extern. It is of the best veg. & subf. & medic.

For intern. use make a spt. Rf 3j oil to 7 of off. m. (I make the spts 1/2 per cent in the pure proportion) It is very good to cover the

taste of unpleasant articles. So oil Cinn.

The oil cannot be taken pure, even on sugar

For a. Linim. R. ol. mon. 3ss tinct. Camph. 3j & tinct. opii 3ii.

Probably the spt. mon. oil. is as good for a rubef. Ol. monarda with ol. olive

remains more fixed but is not so powerful

The oil was introduced by Dr. Allen of Phil

~~The other~~ Ol. mon. is more vesicating than
 ol. capsic. & less so than ol. cantharide.
 The other Monardae are ^{much less active} ~~not so powerful~~
 Therap. applic.

Typhus with cool skin & cold extremities use
 the linim. on the arms, legs & breast (Eberle &
 Allee) to restore heat. Brandy would only
 evaporate & increase ^{the} coldness

Cholera Infantum (an enteritis) - to the ab-
 domen & extremities (Eberle)

Chronic rheumatism - internally & extern.

- peculiarly adapted - Partial palsy
 Hemiplegia & paraplegia.

Tooth ache - I have used the oil when
 the nerve is exposed apply it on cotton to
 the cavity of the tooth & around the adja-
 cent parts - or it may relieve by ext. app.

Ol. capsic. is best - Ol. mon. next.

Monarda oblongata

Less active than *M. punct.* but ^{is} by
 equal. The infus. is useful in the atonic
 stage of fevers. The weak infus. is quite

effectual in the forming stage of ^{febrile disease} atonic ~~for~~
Monarda didyma (Banks) & *Monarda*
Kalmiana (Pursh) These are used
 for nearly the same diseases as *M. punctata*
 & probably differ only in degree of power.
M. Kalm. was first discovered at Oswego & called *M. didyma*
 Pursh gave this name to a Southern species. Both
 are probably varieties. At least the "Oswego tea"
 has the best claim to the name.

The different spec. of mon. either contain
 a less active ess. oil or a less quantity of
 the same oil. I know not which - prob-
 ably the latter. If so the same oil might
 be distilled from each. Probably *M.*
oblongata would furnish a large quantity.

Monarda fistulosa

Common in N. England & has been
 cultivated in Europe for the oil
 It is the *origanum*-*spurius* of old
 writers.

Capsicum

C. grossum - squash pepper is the spec. almost exclusively cultivated amongst us. *C. annuum* is mentioned in the books as being the off. article but is far less common.

The pericarps of *C. grossum* contain 1- an essential oil (called ethereal by the French) which is not volatile at all, and is the same also with that of *piper nigrum*. It is obtained by digesting the pericarp in ether for a fortnight expressing filtering & evaporating the ether. The obtain the oil & crystals of capsaicine the scarv ether still remaining which perhaps might be driven off by heat.

The oil thus obtained is ^{at lower} brilliant & red, aromatic in odor, pungent & warm to the taste. It cannot be distilled without decomposition. It contains all the medicinal virtues of capsicum. I have for years used it as a substitute

2- Capsicine - white acicular crystals

without odor or taste - neither acid nor alkaline. At the 1st crystallization they are combined with some of the oil & were hence supposed to be the active principle & sold at a high price. By repeated crystallization they are purified and then have neither sensible nor medicinal properties. The same mistake was made with regard to Piperine which we always see yellow from the oil, but when pure is quite tasteless & inert.

3. Red coloring matter, which it is difficult to separate from the oil

4. A substance not investigated containing nitrogen

5. Mucilage 6. Various Salts ^{esp. phosphate} especially

For excessive doses, ^{100 caps.} ^{des ulcers} & o. p. are the proper remedies

Dose of oil. cap. - 4 to 10 - sometimes 15 or more. Of the substance 12 grs is a very large dose in our climate but more given in the W. Indies.

Spine with for the effect on the stomach only, and not on the mouth & fauces, the tinct.

sh^d be given in milk & this & swallow immediately
 & it is not tasted. Pat. do not generally complain
 of the taste in acute diseases though they may
 in dyspepsia &c. Nor do they in in. cases,
 typhus & cholera. When there is very great
 burning in the mouth & fauces this article cools
 more than any thing else.

The vinegar of caps. is not so good in irritated
 states of the stomach, as in the in. stages of fever,
 but it is the best form for affection of the
 fauces in Rubella & Rosalia.

Cataplasms may be made of the powder
 & flour & vinegar. Or the caps. may be
 sprinkled on a paste. If a very speedy
 effect is desired a paste may be made
 with pure powder of caps. & hot spirit.
 As a rubefacient it excites an action
 sui generis & often excites one when other
 things fail. There is room for selection in
 rubefacients. In many cases Turb. em. is good
 & lae & caps. good & v. v. So of other rubif.

Therap. applic.

Rheumatic Tooth ache. The tooth is often car-
ried - if on the lower jaw drop it in the oil
- if on the upper moisten lint, or rub up the
oil with sulph. morph. & dip lint in

Chronic styalism - often symptomatic
paralysis or of epilepsy & Chorea - Gargle
the mouth with the tinct. or the dilut. essence
~~Dyspepsia~~^{hagia} atonica - often a mere part of
general palsy - but it exists sometimes
independently & is then curable by capsic.

~~Dyspepsia~~^{hagia} spasmodica

Senilis Dyspepsia - in cases attended with
torpor & insensibility, with much flat-
ulence & freq. reject. of food. Capsaic.
- alone or combined with food, or with
emproptics, deobstruents & tonics will cure
In cases of cold extremities rub them
the diluted oil till it produces a glow
more or less permanent & so as to be slightly
rubefac. - if the powder on cotton is used
it shall be very fine for if as coarse

we have it for the table, it will produce
very little effect. It is used externally
in this disease as a stimulant to the epi-
gastrium - either the powd. or the ess. oil

In corporate it with a spatula with Sea &
Butter (which is the best - it will spread
easily) adhesive plaster - common pl. is too hard
Simosis pycnostoma, a valuable adju-
vant - sh^d be given in form of tinc. or oil as
more speedy

Simosis albicans "white jaundice" - no jaun-
dice at all - highly useful as adjuvant to
xanthoxia, perchlor. merc. & opium

Simosis diarrhoeica - hepatic or tro-
pical diarrhoea - important auxiliary
to perchlor. merc. xanthoxia & opium

Dr Reid of E. Wind. who uses Cop-
perville's rec. it in all kinds of diarrh.
attended with viscid secretion from the
intest. to check the secret. in gran-
ules - large than in quality

Colic - I prefer subefac. to blisters

as their action can be kept up - in the 2nd stages, it is important as an auxiliary.

Colica rheumatica - Capsicum counteracts the sedative effects of mineral poisons, particularly of lead. Sea does not always produce colic sometimes nausea & vomiting. Paralysis, without being preceded by colic. The proper remedies for all these effects are acids & particularly Capsicum.

Colica ciberica of Good from poisons fish, mushrooms, &c. as often however a cholera or diarrhoea or ~~cholera~~ ^{or diarrhoea} ~~colic~~ ^{colic}. The tropic practitioners depend altogether upon the acids & say it is no matter whether the offending substance is evacuated or not & prefer evacuating if not it is not suitable for them. It is important to know that

evac. is not indispensable in such cases - we may enter at once upon the acids as Callicum with confidence or enacetic. If called early I would evacuate the

in case of constipation this is all that is re-
quired - if not give aries. The effects of
pois fish, aries, mushrooms are very sim-
ilar being in both cases, speedy & direct
(sometimes very rapid) exhalation. Some
persons are more affected than others - the
reason is unexplainable. Those of warm
climates are more susceptible than of cold
Columbia & latulenta

Coprostasis - Costiveness attended
with b.poor & atony, & apparently lo-
cal cases where refrig. salts have been
taken till an enormous quant. is necessary to
operate & then with small effect. The
simple aries - such as are not cathar-
tic will often give complete relief in
some cases as much capsic. as can be
taken with the food has answered
the purpose. I know of no certain di-
agnoses in these cases. The only 17 are
generally fatal & no man can resist
from trying caps. - b.poor also enhances the
effect of tonic & astring. cath. as rhubarb

Diarrhoea, pure or idiopathic - in the secondary stage caps. can be relied on alone - sh^d not depend on it in the 1st. It is particularly adapted to 2^d stage, attended with ^{excessive} morbid secretions & relaxation - it restrains and changes these secretions.

Cholera - when the vital energies are exhausted & there is great irritability of stomach & intestines. Caps. will often check it vomiting when opium will be rejected.

The phys. is not often useful in the forming stage, before the vom & surg. has commenced, at which time some other remedy might be preferred.

Cholera glutinosa - great glutinousness & copious rejection of mucus, without vomiting or diarrhoea. Here caps. alone is sufficient & opium is unnecessary.

Parabryonia Coactum - useful auxiliary to Conium & perchloride of mere.

Parabryonia stolonosa - Stomach diseases, always requires more stimulants.

Idiopathic cough from relaxation
 Dyspnea & lab. & Asthma humida in
 it's 2nd stage & attended with relaxation & excessive
 secretion

Passive hemorrhages. capsic. is a popular
 remedy and often given successfully by
 physicians

Erythema of the membranes of the brain. Per-
 haps the U. S. practice of shaving the
 head & applying rubefac. of caps. in the
 thorax would be useful. I know not that it
 has been tried

Parietalitis erythematosa independent
 of Rosalia. The original recipe was
 2 tab. spf. capsic. 2 tea spf. fine salt
 1/2 pt. boiling water when cool strain
 add 1/2 pt. vinegar dose a tab. spf. every
 half hour. This would very well in mod-
 erate cases. The lowest & most severe will
 do better without the salt & vinegar
 Apoptosis Phthisis - after the forma-
 tion & bursting of a vomica Capsicum

restrains the profuse secretion, sustains
the part & prevents sinking.

Dyspeptic Phlebitis

Erythematous visceral phlogosis are
not generally recognised & described
in the books, except enteritis & gastritis.
Eryth. infl has a great tendency to
spread throughout the membrane
which it affects.

Erythematous Enteritis - attended from the
first with diarrhoea & with vomiting if
the stom. is affected. At the outset give
calomel freely with opium. Conium & opium
sulph. quinine. Capsicum is useful ex-
ternally. Capsicum is useful in all
the stages of genuine & malignant ery-
thematous phlogosis & in the secondary stages
of phlegmonous eryth. phlogosis.

Sparganosis purpurascens in cases suc-
ceeding upon excessive hemorrh. & atten-
ded with a low & exhausted state - very
useful here - often as a principal ven-

ed. & always as an auxiliary. It is not
proper in cases occurring after a long pe-
riod & in the more vigorous & robust
Gout (regular) in all low cases

Podagra lervata of Good. ^{are fatal} inproperly
called by Cullen atomic gout for all cases
Case of Dr. Cooley - violent paroxysm in
his foot - he applied some sort of plaster & in
twelve hours it went to his stomach. Dr. Todd
& myself were called we gave annointed
alcohol, an m. tinct. guaiac., alcoh. opium &c.
apparently with little benefit. got no re-
lief & was ~~after~~ in a dangerous situation
Dr. Reed of E. Windsor. entered on a free use
of caps. internally - with speedy relief. I
have known other cases

Rheumatism - secondary stage of all
ordinary atomic acute & all stages of ery-
thematous atomic acute rheum. Eberle ^{vague} is two
Rosalia maligna Rubella Maligna -
Malignant small pox whether confluent
or not (all malign. cases are not confl.) Cases
may clearly be of distinct small po. & get re-

give the most vigorous stimulation
 Purely passive hemorrh. & perhaps irritative
 Marasmus Tabes var. strumosa, var. ven-
 mata, for min. poison & var. libidinosa.

Cystosis Rheum.

All the strumous, phlogotica & strumous
 affections of the glands of the neck

Papphya hemorrhagica This second one
 to be used. I commence with lead &
 continue it till the hemorrh. is stayed - in
 usually 3 days to a week then I
 omit the lead & substitute the sulphur
 quinine. I accompany the lead from the
 first with caps. & brandy. The success
 of this practice bears no comparison
 with that in the books

Gangrene - all the species

Insanity several species is to be treated
 most successfully by tonics acids & de-
 obstruents. This is the way in the Can.
 Hospital & the prop. of cure, cure is
 greater than in any other institution

Atela cholica - a cold, most useful
Hypochondriasis - *Chorea* - good auxiliary
Syncope - in persons habitually subject, is
 coming from slight cause, or spontaneously 2
 or 3 times a week for 6 mos. - in such case
 I have given various remedies both as
 prophylactic & to bring pat. out of the
 syncope have found nothing equal to *Capsic.*
 for both purposes. She could bear when
 the paroxysm was coming on & 3j of tinct
Capsic. would prevent it

Comus lethargus - Erhas considerable rep.
 relation with Dr. ~~Wright~~ (Wright of Jan. 1811).
Paralysis not depending on organic affection
Cunthoria Pellitory Capsic. & *Guaiac.*
 are in use - *Capsic.* one of the best.

Paranemia retentionis & *obstructionis* when
 attended with atony as *P. retentionis* always
 is. The acries, deobstruents, & tonics, are
 the proper remedies. *Obstructionis* may
 arise from imprudent exposure to cold &
 in such a case *Capsic.* is not proper
P. Superflua

Leucorrhoea Communis & senescentium D. Reid
 of E.M. values it more highly than any other
 article. I prefer Cantharis unless the patient is
 unable to take a suffic. quant. without consti-
 dion. & stranguary. Capsic. is next. Nit.
 silver sh^d accompany the ^(local) ~~acrid~~ & local means
 sh^d also be employed

Blorrhoea Senescentis - I have repeatedly
 cured at the ~~same~~, freely & rapidly em-
 ployed - Cantharis which is similar is rather
 more certain to cure - but it is not so readily taken

Spermorrhoea atonica - Chlorosis inops
 H₂ drops Thoria & cellularis - a valua-
 ble adjuvant to diuretics & tonics. We
 must first evacuate the uterus & then
 tonics & acrids will cure, if it is pathic
Empresma abdominis (Typhilitis - from
 diarrhoea or catarrhis - in typhus & colic
 leucorrhoea. very useful

Paruria mellita - externally as a re-
 lief. & intern. as an adjuvant Capsic. is
 felt in the urinary org. & is melted in the urine

Passiva atonica incontinens, var. *atonica*
 Considerable reliance can be placed upon
 the acids both internally & externally.

Capicum is always contraindicated
 in phlogistic diseases, even after depletion
 when Antihistis might be used.

Forms of administration

1st Pill - essential oil in bread - or
 in substance - gr^{ssj} to a pill

The dose of the oil cannot be definitely given
 Be guided by the nature of the case & trial
 Substance - 2. 4 - 12 grs - as much as
 can be borne every 1-2 hours. Some
 give more, even as high as 30 grs -
 this will be rejected

Pharmac. Preparations

Tincture is the best. I usually make
 it with 3j caps. to 1 pt dil. alc.

Dose 10 grs - f3j - Vinegar & water will
 rinse the mouth taste from the mouth

Acetum Caps. - is a good prep. Prepared
 as the tinct. - Dose the same

Infusion - ʒij to ʒi to 1 pt water If it
is to be sweetened, use honey

Externally the U. S. Ph. directs
Canth. ʒi caps ʒi alc. 1 pt. - This prep-
aration might be taken internally too.

Alkaline Ammonia

Is known to the Ancients - solution of carb. discovered by the Alchemists

Sq. Am. sh^d be well stoppered with a ground glass stopper as it absorbs carb. ac. from the air. Much of that in the shops is worthless

The alcoholic sol. is called Spt. of Am.

Internally they are purely stim. & acid

They act principally on the m. m. of ab. Can. but at length cause a rapidly & transient increase of the force of the circulation, if repeated at short intervals. ~~The watery &~~

The watery & spirituous preparations differ as it is unpleasant it is rarely taken for any length of time

I have never seen any nervous effects from it wakefulness & exhilaration. It does sometimes relieve morbid irritability & irritation. So does these stimulants in exhaustion. I never saw it diaphoretic, except by virtue of its stimulant operation

It is discrepant, topically applied - not resolvent, internally

It is Antacid - neutralising a large quantity of acid & also preventing its formation by its acid stim. effects - thus obviating the morbid condition.
Dose of aq. or sps. $\frac{1}{3}$ ss - $\frac{1}{3}$ i - If it is to be

often repeated, dilute with milk & it is taken much more readily - water when a strong impress. is wanted.

It is subefac. vesic. & Caustic - applied weak for a short time it merely reddens - if strong an eschar is produced. Most generally applied in liniment with ol. oliv. - this is best.

When applied pure, flannel will prevent its evaporating. But linim. is bet. - which sh^d be of previous strength & made of aq. amon.

Taken in excess it prod. aton. infl. of stom. & int. The infl. is eryth. like that from acid, & hot water & in both cases, the less fever the more danger. Eryth. infl. of m. m. is more aton. more dangerous & more diff. to cure, than of skin. In the worst case of an excess. dose, there was no pain, great exhaustion as in severe scalds, great stupor, pulse wiry & freq. & weak, skin cool.

If the dose is not so great there will be a burning pain at the stomach - af

towards setting it on. perhaps typhus, &
sometimes fever. The more pain, the more
hope of saving the patient

Opium rec^d ^{with test} in large quantities ^{to neutralise} but after a
few more the mischief is done. It may how-
ever be given in smaller quantities, even an hour
or two after to prevent further mischief. V. S.
& antiphlogistication will do no good & be as improp-
er as in hives & scalds. The topical aff. require
demulc. & antirr. the general, opiates. Dem-
ulc. sh^d be in such moder. quant. as not
prod. stim. of distent.

Opium frequently
is best given by enema, but this depends on ^{circumstances} ~~the~~ ^{case}
Therapeutic application-

Colic diff. forms - as a subsp. & sp. sic.

Phlegm. infl. - as Apertema Communis & Com-
mon Phlegmon - early stages - Effects a res-
olution when the infl. is otherwise gone to suppuration.

Infl. of pances - early stages of phleg. &
all stages of eryth. - to the pances & externally

Infl. of female breasts - said to cure if ap-
plied early, sufficiently & properly. These
infl. are disordered with more certainty than
the others, & are more tractable than if in the

Chronic Rheumatism - the perian & fixed typically
 Palpitation of the functional disturbance of the nerves
 5 dig. erg. & not structural or organic as a relief
 to the Throat it is an effective applic.

Carus atrophyia several varieties. C. Paralysis
 not structural typically & externally

Idiopath. vertigo - Dim's vertigo of Good

Sick headache inter. & ext. gives a ^{press.} speedy relief

Syncope from aff. of mind in universal nar.
 Common & hysterical convulsions also To do any
 thing with it in sick headache it sh^d be taken

- freely & early - better in nervous & highly irritable
 temperaments. In such patients the headache de-
 pends more on the state of the nerves than of stom.

Paramenia obstruct. highly rec. in milk

thron into vagina strong enough to prod. a sensa.
 Do too in Leucorrhoea communis & Senescenti
 Amenorrhoea 16-12 in milk thron into vag.
 about it enters in the period

Bites & Stings - very effectual, but alc. &
 Caprec. are more so. There is not a case on
 record, where alc. was sufficiently employed
 that was not cured. Dr John Osborn of

N. P. who had practised at the South said that
 he called he knew not what to do till it by standers
 told him. He found ann. invariably successful if
 when summoned sent ann. without going himself
 Yet alcohol. is better. It is well known that a drunk
 man never suffers from a bite.

Scallop & Bury. If applied before vesication
 it will prevent it after vesic. it is bad. It sh^d
 be applied only till an art^r, & pain cease or it
 will vesicate. But it is again useful if a bad
 ulcer is produced, & especially if there, dan-
 ger of gangrene. It prod^s a favorable & spec-
 dy separation of slough.

Aq. ann. sh^d be kept in in all
 cases of not over ℥ viii for it is injured every
 time it is opened.

For a liniment equal quanti-
 ties of aq. ann. & ol. oliv. will be too
 strong unless ~~it~~ ~~is~~ for the best ann.
 & the weak for the common.

See the next page

This page to be read
after the next

a tea sp. f. is the ^a medium dose, moisten it
a little with water or any fluid not acid & it
will be readily taken. It is useful in atonic
febrile diseases. It is better than Dover's powder
Formulae sh^d be varied acc. to circumstances
The following may be useful

R_x Ssq. car. am. ʒss syr. orange peel ʒss - ag.
ment. vir. ʒviii - Take ʒss every 2-3 hours (Paris)

R_x Ssq. car. am. ʒi syr. alth. off. ʒviii, or
orange syrup not acid - Dose ʒss 2-3 hours =
10 grs Ssq. car. am. (Richie)

R_x Ssq. car. am. - arom. Conf. ad grov
Pulv. Canthar. gr. j - simple syrup q. s - Take
a bolus every 5 hours (Paris) - The intervals are
too long - The Canth. is the most active article

R_x S. C. am. grs v - Ext. Rhei grs viii
Ft pil. 2 ~~Fabricius~~ To be taken soon after waking
(Paris) Eciprotic & antacid for dyspepsia

D^r Luy uses the following. It is much
weaker than Paris's & Paris's than the other

R_x S. C. a. ʒii - Camph. ʒi Gum arab. ʒiii -
water 1 pt. The water must not be boiling hot

Lesqui Carbonate of Ammonia

Boiling water volatilizes it. By keeping, the carb. changes into a bi carb., losing its odor & partly its taste, but not its alkaline properties.

It is a stimulant but less powerful than the alkaline am. It can be better taken however.

It is inferior to the carbonate but super. to the bi-carbonate.

It is to be nervous & diaphoretic - probably so from its stimulant power.

It is an antacid, but inferior to the bicarb.

Dose 6-20 grs in solut. or pill

Its uses are more extensive from the greater facility of giving it & its supposed ^{additional} powers. Leaq. carb. am. - Camphor & Chalk, eq. parts powdered separately & well rubbed together is one of the best forms & adapted to most cases. Stop it well & exclude the light or the camphor will be crystallized. The chalk keeps the camphor & carb. am. from concreting into small masses & also covers the taste. This mixture is stimulant narcotic nervous & diaphoretic & antacid.

not a little to relieve it as in. Dose ʒi ʒii
every 2 hours

Some of the late English writers, rec-
ommend carb. ac. in ʒi ʒii as a specific
in Hæmaturia & Parasitism. It is a good remedy in
moderate cases.

They use it much in Convulsions of children,
it is considerably used for dyspepsia

It is used in dyspepsia
with Camph. & chalk of some acids as Capsicum
& prickly ash & also with gaiter. &c.

Intermittents It is much used, particularly
at the commencement. Used too in typhus
in Common epidemic catarrh. Gout & chronic
acute rheumatism. Hemicrania & sick
headache. Also employed with considerable
success in after-pains of periperal women &
where used moderately it does good, but
it only accomplishes in a few days what
opium would do in a few hours the same
number of hours.

Catherin

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Sulphate of Potassa

Notes

This has been called an aperient by Duncan in doses of $\text{ʒ} \text{ i } \text{℥} \text{ 3ss}$ & Cathartic in $\text{ʒ} \text{ v}$. It cannot be managed as an aperient in Dr Sully's sense of the term *phlebot*.

It is Purgative - cannot be managed as a laxative nor as an eccoprotic - neither as a drastic.

It is a hydragogue but not sufficiently so for dropsy. Claterium is better.

It operates on the whole al. canal but rather more on the upper part.

It is kind in its operation & leaves the al. can. in a good state.

It is a rapid cathartic. It is not appropriate to produce a shock or strong impression.

Its other operations are - refrig. - said to be diuretic - do not think so. Theophrastus says it is diobstruent. I know not upon what ground. It cannot be so inde-

-pendent of the operation evacuation

Medium. Cathartic dose is \mathfrak{zj} - as a
refrig. from \mathfrak{zss} to \mathfrak{zj} once in 2 or 3 hours
Diseases

Causa & all the causatoid phlogotica
- of course contraindicated in low atonic fever
It is appropriate in any phlegmonous infl.

Hooper says in Coprostasis - this is
an atonic state of the system & therefore this
article cannot be indicated - there is torpor
of the liver & this does not act on the liver

H. says too that it is good in Jaundice
The same rule applies here

He says too in Suppression of the
Lochia. There is no such idiopathic
disease - if the suppression is attended
with infl. of the uterus, sub. pot. may be indi-^{cat.}

He says Dropsy too - but as there is no
atonic diathesis, it is not indicated

Sulphate of Magnesia

Heister

Duncan says it is a mild purgative. This is applicable to all the salts of which I shall treat.

It is said to be diaphoretic - not directly so, but by virtue of its evacuating operation. Not much diuretic.

Duncan says it will relieve pain in colic. It will do so only in antonic diarrhoea, but colic is not antonic.

It is cathartic in the same degree & in the same way as the two preceding salts (Sulph. Pot. & Soda?).

Doses & rules of application are the same also.

Phosphate of Soda

Sal per lumen of the old books

It is similar in its effects to the other salts & requires very little if any more to a dose

It is better managed as an emollient & laxative than the other

It is not quite as refrigerant as the preceding, but all its other peculiarities are the same - as to time, mode &c.

Med. Cath. dose $\mathfrak{z}\text{i} - \mathfrak{z}\text{jss}$

Swedinger recd. in struma - I do not think it appropriate

Tartrate of Potassa

Elixir tartarata. Kali Kali tartar. - Kali tartarizatum

Pot. tartarizatum. Alkali vegetabile tartar. -

Tartarus solubilis or soluble tartar is the common name of the shops

It has the same effect as the others I do not think it can be distinguished from them. I have found no article but the contraindicated narcotics that w^d qualify its operation so as to prevent urinary

Tartrate of Potassa & Soda

Soda tartarizatum - Sal polycretum - Sal
Seynnette. Kali & sodae tartar - Tartrate of p. & s.

It was introduced as a substitute
of the name of Seynnette

I know of no difference between
it & the others - it is applicable to the same cases

Bi-Tartrate of Potassa

inter Duncan says from ʒss to ʒi
is a medium dose for a cathartic.

It is far more direct than the
others yet not sufficiently so for dropsy
It is of no more benefit in schismus or drop-
sy from schismus than any other diuretic

It is purgative - cannot be man-
aged as a laxative - is more hydra-
gogue than any of the others - quick
in its operation - not so kind

It is peculiarly liable to derange
the al. Canal. None of the other salts
can be said to be irritating. This is con-
siderably so - Consequently it is better

adapted to produce a shock or strong impression. It is more refrig. than the others.

Medium dose, from 16 - 60 grs in 3 hours - 60 grs once in 3 hours will purge pretty thoroughly. And 16 grs in the form of Pulvis Jalapae Composita -
 R^x powder of jalap one part - bitartrate of pot. two parts - ground together to an impalpable powder.

This pulv. jal. com. is recd. as a refrig. & used to be the common hydragogue when phlogistic diathesis prevailed. It is even now retained by some phys. & is Dr Hosack's hobby - he gives no other.

The bi-tart. pot. is adapted to the same diseases as the others except that it is better in dropsy being more hydrag. & diuretic.

Dyspepsia - recd. by Jas^d John^m - of course contra-indicated - he gives it in a dec. of dandelion
Colic - recd. - Coprostatia - not good

Proctica Menisca & Bleeding from hemorrhoidal vessels
 It increases the irritation -

Oxide of Magnesium

This name has been applied to the gactitious carb. mag. - Magnesia alba - M. usta

Calcin'd mag. has been applied to both

$\frac{3}{4}$ of the "Calc'd mag." sold in the shops is nothing more than the carbonate

Its purity can be tried, by its not efferv. with a strong acid

It is eccepsrotic, or at most laxative & antacid

Diseases - Cardiac - Spasms - Con-
vulsions - Tormine & other ^{diseases} produced by
acids - Spasms in the ab. can.

Swed. recd. in Coprostasis

Rickets. Suppressed leucorrhoea
accompanied with torpid bowels

Gout - supposed to be peculiarly adapted -
- small doses continued for a long time were
thought to remove the gouty diathesis

Lithia - gravel - independent - It is not ^{symp} lithic

Medium Dose - 10-30 grs

³⁻⁶ 3 times a day. One circumstance sh^d be
attended to. It diminishes the appetite

stance. here the case is atonic & there is a want of appetite, it sh^d not be given

The Salts of oxide of magnesium, in appropriate cases, as phlogistic ones are kind in their operation & leave the al. can. in a good state. They make but little impression on the system & therefore are not serviceable in giving a shock

Med. dose $\mathfrak{z}\mathfrak{ss}$ - $\mathfrak{z}\mathfrak{i}$ in solution - indeed you may say $\mathfrak{z}\mathfrak{i}$ is a med. dose.

Better in solution than in substance in highly phlog. diseases it is proper to add nit. potassa or tart. ant. to increase the refriger. effect. When a cath. is not wanted the dose as a refriger. is about the same, but nit. potassa & tart ant. are better

Diseases

Causes — Entonic phlegm. Phlogistic
They ^{are} sometimes applicable in diseases not exactly entonic nor atonic

Facitious Carb. Magnesia

mag. sub-carb. - magnesia alba

mag. aerata - It is soluble in water

Eccoprotic & Laxative - may be

so managed as to prove both - Not purgative nor drastic under ordinary circumstances. A. T. Thompson. says it is not laxative unless it meets with acids in the stomach

It is copragogue. It acts on the whole track of the al. canal.

It is slow & kind & generally leaves the canal in a good state. It is antacid

Dose - 10-30 grs - several times a day

Diseases

Limosis Cardialgia - Coprostasis - some cases - such as do not require large doses of medicine

By means of this article more carb. acid might be generated in the stomach than in any other way. But I do not approve of the great use of this acid.

Myrsine Catechu
Manna

From the *Cornus rotundifolia*. It has been said from the *Fraxinus rotundif.*

Same nat. group with the olive oleaceae

It is the concrete exuded juice, obtained from the descending saps by slit cut in the bark. The juice is of a white frothy appearance.

Taste slightly nauseous. The best Calabrian manna comes in long light friable pieces transparent pieces. The inferior kind is moist unctuous & dark coloured.

Fourcroy says it consists of four principles 1. Pure manna $\frac{3}{4}$ of which is called mannite 2. a little common sugar 3. a yellow substance of a nauseous smell 4. mucilage

E. & Var. Call it a mild purgative
Murray, a laxative

It is ecoprotic & laxative

It is given to children, but is unimportant for adults. The older it is, the more purgative

Dose - for adults \mathfrak{zj} $\mathfrak{z}\text{iii}$ in water
milk & water or better in milk

Cathartocarpus fistula

Native of E. & W. Ind. but cultivated in the warmer parts of the U.S. Commonly called "Locust & wild honey"

The Pulp of the Locust is the part used. It has a black colour & a sweetish taste.

It is said to be a good cathartic when taken fresh from the pod & occasionally gripes & produces flatulency. It is given for children.

Eccoprotic at the most laxative Copragogue. Acts on the upper & middle part of the intestines. It is kind unless the patient is predisposed to tormina & pain &c.

Medium dose for an adult $\frac{3j}{\text{ss}} - \frac{3j}{\text{ss}}$

Rosa Damascena Damask Rose
Native of the South of Europe

The petals are used. They are given
in infusion & are a highly popular laxative
for children.

They are made into a confection
also & said to be good in habitual constipation
given in the dose of a table s. f.

Laxative in moderate quantities -

Purgative in larger

The quantity for an infusion is ℥ii of dried petals

Rosa Gallica Rubra - red rose
This is similar This is similar in operation to the damask

Linum catharticum

The whole plant possesses cathartic powers

Operations. Purgative - difficult to manage as a laxative or eccoprotic

Its natural operation is Hydragogue
Acts on the middle part of the Canal

Takes a medium time for operating
Rather unkind - Leaves the bowels in an irritable state

Dose for an adult is a "hand ful",
infused in $\frac{1}{2}$ pt of boiling water - or
℥i in substance - Infusion say ℥ii
to ℥iv or ℥vi of water

Cassia Lanceolata - Senna

There has been much dispute about the species of *Cassia* which is the true off. Senna but it is undoubtedly the *C. lanceolata*. This is the true off. or Alexandrian Senna, but it comes adulterated with other species & other plants - the *Cynanchum olifolium* is found among it - All the species probably possess cathartic powers but to ⁱⁿ a less degree. The term Senna has no specific applic. It is applied as "Spæcac" is applied to any emetic article.

That Senna is best whose leaves appear bright, fresh, free from spots, strongly scented, bitterish & nauseous, smooth & soft to the feel, sharp pointed, free from stalks & legumes.

Senna contains a peculiar principle called sennine (cathartine?).

Operations - It is Purgative - not ecaprotic or laxative. It is more or less Hydragogue - the moderate its operation the more fecal the matter discharged. It acts on the colon. -

It takes a medium time for its operation
- about 4-6 hours after being taken

Dose of the Confection Zi-Zii -
- of the Infusion 1 Troy oz. will saturate a pt.
of water - Add some aromatics, to disguise
the taste

This is a bad cathartic - being hydra-
gogue & apt, to occasion griping &c. "Any
other is better" Prof. T. has discontinued its use

Schinus molle Linn.

Cassia orientalis Sennappuna Pride of
Barbadoes &c. Nat. ord. Leguminosae
Cultivated as an ornamental shrub

The Leaves, Flowers & Seeds are the
parts used - The leaves are the strongest
& the flowers next - both used in Decoction

The seeds are least powerful & are
used in powder Zi to a dose

This plant has considerable
reputation as an emmenagogue. It
is not little known with us.

Aloes

That from a variety of species is found in the shops. There is the *Aloe spicata* from the Cape of Good Hope & the *umbellata* from the same place - the former is now considered the best. There is also *A. persea* of Persia? *A. Socotrina* & *A. vulgaris* of Persia?

The greatest part of the aloes in the shops is from the *A. vulgaris* of Barb. does. The appellation *Socotrina* applied to aloes means nothing more than that they are of a good quality. The apothecaries in recommending their aloes will tell you they are the *Socotrina* aloes.

The best aloes is an extract made by a cut in the shrub from which the sap exudes. This has at first a sweetish taste & soon after an intensely bitter one. It has not the glassy appearance of the poorer kind.

Another mode of obtaining aloes is by inspissating the juice of the plant. This is nearly as good as the exuded sap - there is not much difference.

A third way is by decoction -

about 1 lb of the plant to 8 pints of water
boiled down & strained. This had not the
sweetish taste at first perceived in that ob-
tained by exudation

The Properties, A.T. Thomps. says of the
best kind *A. spicata* - the Odor rather pleasant
- Taste sweetish at first, & very bitter soon after
- powder of a bright yellow & aromatic in all
1st quality very disagreeable - taste intensely
bitter - but not differing materially in med. & good
qualities from the 1st
3rd quality - of a dark brown colour, hard &
friable

There has been no true analysis
of aloe. The old one in the books is still
retained but I do not esteem it correct.

Operations Cathartic - Heating
& Irritating. Emmenagogue per se

Dr Linn thinks it is menagable &
an ecoprotic & laxative & that it operates
more kindly when taken with food. The
latter is probably true & it is the case

with many other medicines e.g. ~~tonics~~ & diffusible stimulants.

Dr Lves thinks aloes have no direct tonic effect, but an indirect one. He thinks they act on the liver promoting gradually the secretion of bile. He thinks it moderately deobstruent - but I do not use the word deobstr. in this sense i.e. an article affecting one gland or the liver for instance. To say that aloes acts on the portal system is merely saying that it acts on the liver.

Dr Lves thinks aloes are emmenagogue, independent of their purgative effect. They undoubtedly are so. He thinks that tho' they irritate the kidneys & bladder & color the urine yet no increase of urine is produced.

Aloes are a Purgative, but may be easily managed so as to prove eccepsrotic & laxative. In large doses they tend to act drastically.

They are slow in their operation from 12-24 hours. The discharge

are purely pecu- hence they are Copragogue

They act on the lower part of the bowel (i.e. they act principally on that part for all cath. act on the whole canal more or less). Their operation in appropriate doses & cases is kind, though if given inappropriately they irritate.

Appropriately given, they leave the al. canal in a good condition.

In ecoprotic & laxative doses, they make but little impression in full doses a strong one

Next after their purgative effect aloes are menagogues. They are said to be sub-tonic - I presume indirectly so. Said to be anthelmintic - probably more so than most cathartics.

Dr. A. T. Thompson says they are not beneficial in hemorrhoidal affections. But Dr. Tully & S. B. Wood have given them with good effect in such cases. As a general rule however I would not use them in a peculiarly irritable state of the intestines though even in such cases I have cured

better than with any other article. The form of Pills alluded to is Proctica Merisca

These combined with about a medium dose of opium are thought to counteract the effects of the ^{pusset} opium. This combination is very useful when costiveness has resulted from a continued use of opium, but you will find after a while that less of alves will be necessary. I have made the combination in the following proportions viz. 1 part of opium to 4 of alves

It is the common practice to give a cathartic pill when a practitioner does not wish to give calomel, and alves with gamboge & soap or some other extract is a common pill. When such a pill is wanted I have used

R^{ss} alves grj - gamboge grj - oil. tigl. gtt 4 -
 Soap g. 2 - ft 1 pill. Sometimes but
 1/2 a pill will be necessary, according to
 the state of the ^{5th} habit of the ^{part}. If the patient is
 in the habit of using opium or has taken

It for some time 2 pills may be required

I do not consider aloe good at the commencement of acute diseases. When a cathartic is wanted at the commencement of an disease to break it up I would not give aloe.

If you wish merely to evacuate feces or to produce an evacuating or laxative effect, ^{in the secondary stages of a dis.} aloe ^{is} good in certain doses.

Diseases - It is difficult to specify them. Scurvy says Dyspepsia with great torpor. Pyrosis - when bowels are torpid.

Habitual costiveness - here they are also good. Applied externally.

Ulcers with a gangrenous tendency - exten.?

Cases of continued discharges from the ear - a solution of aloe injected.

The Dose varies according to the susceptibility of the patient. From 1-2 to 4 grs may be given as a laxative or eccep. in the 24 hours. As a Purgative about 5 grs may be required.

There are a great variety of Phar. Preps.

Conallaria macialis

I have seen it in the meadows of Middleton
tho' it is considered not indigenous with us
'The root & flowers are considered the
medicinal parts.

The extract of the root possesses some
of the medicinal properties of aloes - tho' a
little weaker. It acts on the rectum
& I presume it would prove emmenagogue
in the same way.

The Dose as a Purgative is said
to be ℥i or ℥ss - Probably a smaller dose
would operate if given over night.

The dried root pulverised is a
stimulant & so are the flowers.

The flowers when fresh are fragrant
but not so when dry.

I do not know much of this
article.

Polygala polygama

A specimen from which the bracts had fallen off was sent to Willdenow & he supposed it a new species & called it *P. rubella*. It is called

here "Low Centaury" but in the Middle States this name is given to *Hypericum parviflorum*. *Sabatia angularis* too is called Centaury.

The English Centaury is *Erythraea centaurium* Nat. ord.

Every part of the plant is entirely bitter - the leaves more so & the root next of all. It very much resembles aloe in taste & medicinal powers.

It is an efficient Cathartic - the natural operation in an appropriate dose being by Copraegogue - the discharges consisting entirely of feces. In larger quantities it may be made hydragogue.

It is slow - the natural operation taking place in 12-24 hours.

It aggravates Præternaturalis & in great doses produces that disease. Otherwise it is kind in its operation.

The impression it makes is moderate
 It may be considered Tonic - also Antihel-
 mintic. It is decidedly Emmenagogue
 - It has been supposed to be Diuretic but I
 never could discover this effect. Prof. Lves
 says it increases the secretions generally - I fear
 it is a Deobstruent

It has been said that this article is
 bitter & nauseous & that the juice it sh^d be
 rejected from the Mat. Med. This rule w^d
 make our list of medicines very small

This article will make a good Beer or Ale
 Its natural operation is that of a Purgative
 & Emetic
 Pharm. acc. Prep.

1st Infusion - dried plant $\mathfrak{z}\text{ij}$ - water $\mathfrak{q}\text{j}$

2^d Decoct. - dried plant $\mathfrak{z}\text{ij}$ - water $\mathfrak{q}\text{ss}$ - boil to $\frac{2}{3}$

3^d Tinct. - $\mathfrak{z}\text{ij}$ to \mathfrak{q}

4th Ext. by Decoc. - This I think the best - Make
 it of a consistence for pilling

As a cathartic the decoction is best & the

Dose is $\mathfrak{z}\text{ij}$ to $\mathfrak{z}\text{iv}$ I have given even a
 wine glass - It has operated in 12-30 hours

Gives 3 lbs - 3 ad 11

As a Tonic the Sinct. is best in doses of $\frac{3i}{3}$
3 or 4 times a day

Diseases

Dyspepsia with coarser in its various forms

Coprostasis

Parasemia intestinalis & obstructions

Upon the whole I consider this
a valuable article much more so than
it is supposed to be

Sponnea Jalapa Mich.

This has been supposed to be the root of 2
species of *Mirabilis* - but they do not
produce it (they are called 4 o'clock in
our gardens) - *Convolvulus Jalapa* of Lin.

The plant from which the real
Jalap is obtained, Dr. Coxe calls *Sponnea*
macrorhiza for an account of which vide
Coxe's *Diapens.* - the roots produced by
this plant are like those of *Convolvulus* -
but Mr. Nuttall pronounces it false &
an *Sponnea* (not plant 4?).

It usually comes in roundish, ovate but pointed tubers internally yellowish

At the present time we get our Jalap from Vera Cruz & it is not adulterated

Diluted alc. is said to be the proper menstruum for Jalap

It is used for its cathartic powers merely - it is difficult to be managed as a laxative. It may be made Purgative or Drastic

In moderate doses & allowed sufficient time to operate it may be made Copragogue - but in excessive doses it is Hydragogue. It acts principally on the Colon

The off. Jalap is called in the books a stimulating cathartic. It is an irritating cathartic, rather. In a phlogistic, or atonic irritable state of the system it will produce irritation & increase it when already existing.

The alcoholic ext. is said in the books to be irritating, but Dr Eves says it is not. The ext. with Plum coposus

is made partly with water. In moderate doses the alc. ext. is not irritating.

It is probable that several species of *Convolvulus* & *Sponoxa* possess the same powers as the off. *Galeps*.

Podophyllum Peltatum

May apple - Mandrake &c.

Triosteum perfoliatum Linn.

Root perennial - top annual

It has a popular name in almost every place in which it grows - Fever root - wild gentian - wild Spicac. - wild Coffee? &c

Nat. ord. same as that of the climbing ^{symplocos} honey

The parched fruit is said to have been used as coffee. The root only is used in medicine - the bark of this is said to be cathartic & emetic

Dose for a cathartic is $\mathfrak{z} \text{ i} \text{ ss}$ - this if taken over night will be effectual. It is about as active as Jalap if pure & collected in the right season. It is injured by long keeping, but if collected in the autumn & well dried it will retain its strength

The operation is supposed to be modified by a conjunction with mercury &c. ^{for instance? by?} as a conjunction ^{with?} of $\mathfrak{z} \text{ ss}$ of *Pro-moca Jalapa* & *Podoph. pelt.*

When a cathartic & emetic operation is desired this article combined with ^{ai?} proto chloride of mercury in full dose

sh^d be give - dose of ʒi to ʒss

B. S. Barton thinks it diuretic but I have discovered no such effect & think it no more so than rhubarb

Dyckman says it is tonic - he probably inferred this from its bitterness. I have never seen this effect & think it no more tonic than rhubarb & podophylla peltata. I think it more likely, that ultimately it will be found Deobstruent

This article is a cathartic. Its natural operation is that of a purgative - but it may be so managed as to prove laxative. Its discharges are mainly fecal & are copious. It acts on the colon. In a full dose it has a medium time of operation. Its operation is very kind not very much the contrary. It leaves the canal neither in a very good nor a bad condition

Diseases - It has been prescribed in Intermitt. (Shoeph?) I think it not very applicable

- and in "Pleurisy" (but there is no anstidispast. dis. though Phys. constantly speaks of it - Phoept? probably means pneumonia) & sh^a think it not good. Laid to be good in Struma - I sh^d not think so

In reality this article is applicable only to the diseases in which Jalap & P. peltatum are of no other

The right time to collect it is Autumn. The powder sh^d be kept in a bottle tight & excluded from the light. I w^d not pulverise much at a time for it loses its strength easily. Fresh parcels sh^d be collected every year

Leptandra Virginica

Culverroot - Physic root - Indian Physic.

It is difficult to tell what is its nat. order.

Said to grow in Japan - but probably a diff. spec.

The root has a bitterish & subnervous taste, analogous to Jalap. Both alcohol & water are the proper menstrua.

It is cathartic. — In its recent state D.G. thinks it one of the most powerful of our indigenous cathartics. When dried, it loses its cathartic power.

Rafinesque says it is a cathartic & Emetic - but there is no reason for supposing that it has such a power.

When recent it is said that 4 or 5 grs. are sufficient to prove cathartic, but when dried ʒi or more will be necessary.

I think a wine of this article (ʒii to ʒxv) will be a good preparation for retaining its strength. I venture to say that a syrup would answer.

For instance - make a saturated decoction (say 4 oz to the lb) & add the q.s. of sugar.

to make the simple syrup of the Phumeo.
 Then add oil of wintergreen to give flavour
 Perhaps an ext. might retain its powers
 There is room for experiment

Therapeutic application -

The cures mentioned in the books I do not
 think correct - Coprolasis - active
 cathartics are not applicable to this
 Bilious Fevers - this is indefinite
 Rheumatism - not good - Sub-acute rheu-
 matism - other articles better - Old Chron. rheu-

Ricinus Communis

R. major *R. vulgaris* more commonly *Palma*
Christi Ricinus. One of the older names, is
Agnus castor - whence Castor oil

Nat. ord. Euphorbiaceae Cultiv. with us,
 Castor oil is obtained from it

seeds. It is completely soluble in alcohol
 & ether. The mixed oil is obtained by
 decoction, which method is resorted to in the
 W. I. for the Measles (Hooper's Dict.

If the Cortex of the seeds be permitted to re-
 main in the oil will be acid. That made
 by expression is also thought to be acid
 & a decoe. - I think the seeds
 sh^d be decocted for the active prin-
 ciple probably resides in the Cortex

Its operation is quicker & kinder
 than any other cathartic & as a purgative
 agent it is the best in the Mat. Med.

It seldom produces any griping. It is
 moderate, producing at most only 2 or 3
 discharges says Cullen who says it is pecu-
 liarly adapted to children. C.ica thus

of C. Rhach. It is not heating nor irritating to the rectum & is well adapted to hemorrhoidal affection.

Medium Dose ʒss - some require more - others less. Its ordinary operation is mild. If frequently repeated the dose may be gradually diminished, which is not the case with other cathartics. That ol. ric. increases its power by repetition is an important point.

The only inconvenience attending the use of this article is that it is nauseating & disagreeing to some patients. To obviate this give it in a wine glass with water below & spirit or spirit of spst. above & it may be taken by the most delicate & squeamish. Even rancid oil may thus be taken without its rancidity being noticed. I know of no way so good as this.

Ed. & Var. say this oil is only a mild laxative - but it is a Purgative. They say that by rancidity it produces tormina & dysuria &c. This is correct.

Some think that it possesses greater power than any other cathartic in removing worms. I have never seen its superiority in this respect. It is always better to give some narcotic cathartic & get the worms under narcotic influence. - as we do by Spizelia.

This article is Laxative - not so easily made to act as an emecoprotic - Purgative - Copragogue - It produces no bilious discharges. - It is not drastic. It affects the whole track of the bowels equally. It is speedy - is kind unless ran on & leaves the al. Canal in a good Condition. It makes little impression on the system & of course is not good at the commencement of acute disease.

The following formula is used in the M.D. in Colica Rachial. R. $\text{z\text{ij}}$ of the oil to $\text{z\text{ij}}$ of spirit & turn them about $\frac{1}{2}$ a min. until part of the spirit is burnt. It is said that this is effectual in that disease.

I have beat up this oil with the yolk of an egg & thus completely de-

ceived patients & got the full operation of the article, when they had absolutely refused to take it

The decorticated seeds are taken as cathartics in some parts of S. Am. (Probably 4 or 5 of the bruised seeds are a ^{dose}.)

A saturated tinct. of the seeds is said by Piso to be a more powerful cathartic than the oil. Dose of the tinct ʒi (ʒi?) - the seeds should be bruised

Euphorbia Lathyris (oleum)
Cultivated in all our gardens. The most common name an oil is *leaper & sponge*. Its fruit is said to be good for pickles. Native of Europe. Nat. ord. Euphorbiaceae

The oil is obtained from the seeds a common practitioner could obtain it by macerating the seeds in ether

By long keeping it becomes turbid & rancid. It comes in vials of ʒi

It is said to be a mild & safe but active cathartic & a good substitute

for oil of Tiglium

Dose for an adult 4-8 gtt in milk
- sugared water or any convenient vehicle

Its action is certain, prompt & at the
same time mild, - not producing tormina
or griping like *C. tiglii*

It is Purgative - drastic in full doses
- may be used as a laxative. It is copra-
gogue in ordinary doses. It is irritant in
full doses & may be said to be sub-emetic
It affects the whole track of the intest. Canal
It is very speedy, 1-3 hours - is mild &
agreeable in medium doses - & leaves the
Canal in a good condition. It makes
rather a strong impression

Satrophea - 2. species

S. Curcus and *S. gossypifolia*

Called Barbadoes nuts

The oil from the seeds of the *S. Curcus* resem-
bles very much the Castor oil

Croton Tiglium

Pinus Indica Pinus Indica

These oils all belong to the same nat. ord.

The wood has been used in medicine (Sium Moluccense) - the seeds also grana Molucc. grana vicina in English called "purging nuts"

Native Country Ceylon Moluccas... E. Ind. China.

The genus Croton is said to contain 50 to 60 species of which 15 are known to be in the U. S. One species in the U. S. affords a highly aromatic oil

The oil of tiglium is obtained by expression from the seeds. It is said to have a sharp taste - odor sui generis

It is said to contain fixed oil 55 parts & an acid principle 45 parts. This latter has been called Tigline

The seeds, root & wood have been used in medicine, but the seeds & oil are the most powerful

The oil of Tiglium is the most

rapid cathartic known. Its operation is said to be modified by aromatics, acids &c. but better by small doses of opium. Baking or roasting the seeds before exposing the oil is said to have this effect.

Its natural operation is Purgative or Dracetic. It is difficult to manage as a laxative unless by tincture or a little opium. As a laxative it is copragogue but in larger doses hydragogue & irritant. In large doses it is dracetic. It may be said to be sub emetic.

Said to be diuretic & diaphoretic - but I think it cannot be directly so. Its operation on the whole canal - is the most speedy cath. we have - usual time $\frac{1}{2}$ hour. This can be made to depend on circumstances - sometimes less than that time. If the dose is not too large the operation is not unpleasant - if large a burning is felt. Moderate doses leave the bowels in a good condition. This article cannot be preferable.

to colour in typhoid diseases - nor to the
refrj. salt in the inflammation

The oil of tiglium in the market is said to
be adulterated. I have always found that with
shops to be of full strength. When pure it pro-
duces resolutive effects on topical applications.

It is said to produce catarrhs when rubbed on the
umbilical region.

Dose of the oil $\frac{1}{2}$ to 1 minim. The tincture
made directly from the seeds is the most eligible
form. Dr. Bigelow gives a formula for its strength.

The oil may be given in milk - but I pre-
fer the pill - made of bread. Unless cam-
phor is added the pills will mould. I prefer
dough to baked bread. It may be pill^{soap}ed with.
Another form is \mathcal{R} ol. tigl. \mathfrak{m} j - syr. sepos. \mathfrak{z} j

Opium, better than any other article
modifies its ^{operative} effects & obviates the unpleasant
effects of this oil. In combination with
castor oil it affords the best cath. for poisons.

It makes a good enema. You will re-
member that generally 3 times as much is required

by enema or by the mouth

The effects of an over dose are severe burning
pains ~~hyperemesis~~, hypercatarras &c.
Opium is the best antidote

Diseases Coprostasis (C. & L. var.) - as a gen-
eral rule this sh^d not be treated with drastics
Tenia - I think however that the ol. pini
is better, for in this you have narcotic & other
powers which are peculiarly desirable - to hasten
an evacuation the ol. tigt. may be given

Delirium Tremens - Some writers say that this
oil has been highly serviceable in this in conjunc-
tion with opium - As a general rule purging is not
indicated in this disease

Rheumatism - As a topical application it
will probably do good for this is generally fixed

Mania - on acc^t of the facility of getting it down

Tetanus - alledged to be ^{if p^{ur}g^e is indicated} useful with ^{the} can. acc^t.

Neuralgia. - N. Faciei. - Cases of Apoplexy.

Obesity - sh^d to be benefitted by freq. purging

Dropsy - but elaterium is our best article

Oil of Tiglium is not a new article
in medicine, but an old one revived

Scammony

Convolvulus Scammonia is said to furnish the Smyrna Scammony - but this is less valuable than the Aleppo Scammony. Another kind is the Montpelier Scammony from Montpelier.

Convolvulus Sepium (Linn.) is another species producing scammony. It grows about our hedges & is called Field bindweed & Poison weed - though it is not poisonous.

The exuded & expressed & spissated juice are both employed. The exuded is the most powerful & best - dose 5 20 - 30 grs - 30 grs is a powerful dose - it grows throughout ^{the} U. S.

^{scammony?}
It is called a gum resin, but is not more so than any expressed juice - Used in Dropsy - Rheumat. better - in Helmin. - Spets Turps better
Natur. operat. Purgative - drastic if given alone - Modified by combination - Not easily managed as a laxative - Acts on the colon
Medium time Makes an impression -
In large doses is an irritant.

Gamboge

several plants afford it - *Sinuous* supposed the real Gamboge - came from the *Gambogia Gutta* - Murray, from the *Stalagmites Gambogides* - Others from the *Garcinia Gambogia* of Willdenow & others say the *Gambogia guttifera*. The name of the plant is not derived from the place in which it is found. *Stalag.* & *Garcinia* grow in Ceylon - *Gambogia* in the E. Indies.

Gamboge is the inspissated descending sap, obtained by exudation - improperly called a gum resin. The juice concretes & is formed into masses. It is imported from Siam, Ceylon, Coch. & China &c.

We have no analysis, but the old one of 20 many parts solub. in oil & insol. in water.

It is said in the books to be one of our most drastic ^{& hydrag.} cath. - but others are more so. Being drastic it is used in helminthia, but because an article is drastic it does not follow that it is good for worms. As to its hy-

dragging power. It is not always to be relied on in dropsy. The Italians say that Garboge is contra-stimulant. What they mean I do not know.

In purgative & laxative doses it is more retarding than the preceding articles. It is difficult to be managed as an eccoprotic.

It acts upon the upper part of the intestinal canal & all the articles that do this promote more or less the secretion of bile but it does not on the whole secrete & absorb. system & hence is not deobstruent.

It irritates the intestinal canal & may produce an acute atonic irritative infl.

It has been called by Orfila? a caustic poison, but it is not. He says too that externally it is rubefacient. This is not true.

It is more used by the British practitioners than by the French & is given in combination with other cathartics. Thus administered it is useful.

Gamboge is a Strong Purgative is Chol-
agogue by acting on the stomach & duodenum
 is Hyparagogue - acts on the upper
part of the Canal - is Speedy - is on the whole
Disagreeable in its operation - when given
 alone, leaves the al. Can. not in a good
Condition, but if judiciously combined its
 operation may be made kind & agreeable,
 while by a frequent use of gamboge & by
 unjudicious combinations of it the al. Can. is
 left in a very bad condition - it makes
 a strong impression on the al. Can. & whole
system - is irritant & finally is to
 some degree an emetic, though this
 ought not to be enumerated among its
 operations

Dose - 3-6 grs - recc. triturated
 with sugar - but I w^d not recc it alone
Dysentery - Coprostasis - recc. but not alone
Tenia - Jaundice - recc. - cannot be of
 much use other articles better Quarant
 used as a purge but not good - Dropsy recc.
 - ^{other} ~~other~~ art. better. Chrom. Catarr. dis. - ^{I think} not good

Rhamnus catharticus

Buckthorn Lat. and Rhamnaceae Native
of Europe. It could be this country & some
times grows wild, ^{the berries of the Rhamnus} probably from seeds dropped by birds.

The berries are used. They are siliiform black
& shining, with a taste bitter acid & nauseous &
containing a pulpy green juice.

As a cathartic, this article is both cholus
& hydrag. & its natural operation is peroga-
tive & drastring & it is not easily managed as a
laxative. When drastring it is powerfully

hydragogue, but not so much so as elaterium
but more so than most ^{drastring} hydragogue cathartics.

It acts on the middle part of the al. can. &
requires a medium time. It is irritating

& leaves the bowels not in a very good state.
It requires opium to obviate its ill effects.

It makes a peculiarly strong impression on the
system. It is irritant & may prove enetic.

It is said by some to be drastring - it may prove
somewhat so in small & often repeated doses, with
demulcent regimen & allowed to remain sometime
in the al. canal.

Diseases — Rec. by A. T. Thoms. in Cachexia
 & also rec. in Syphilis — do not believe it good in the
 Dropsy, — rec. by A. T. T. — better in this than most oth-
 er cathartics. $\frac{1}{2}$

It is used in N. Haven in certain cataneous
eruptions & rec. in doses short of purging —
 I have never seen much benefit from it in en-
 taneous diseases

The common dose of the berries
 is 20 The expressed fermented juice is
 rec. in some books — decidedly bad

Decoction of the berries is also used — it is rec.
 to boil 20 of the berries in 1 pt of water — very weak
 The syrup of the berries is the best form Rx —
 If you wish to mitigate or modify its action add
 a little paregoric

Almost every farmer thinks
 he knows what Buckthorn is but it is not
 found with us. There are spurious articles
 sold under the name of Buckthorn. The
 article commonly sold under the name
 Syrup of buckthorn is made of the berries of the
Cornus sericea

Bryonia

Nat. ord. Cucurbitaceae Root fusiform &
 tessely acrid & bitter Formerly, the root used to be found mixed
 with Galap. Sometimes the inspissated
 juice of the recent root is used

It contains a principle Bryonine which is prob-
 ably active one

The root was formerly employed as a
 purgative & emetic - applied to the skin it
 is said to be irritant & rubefacient

Dose of powd. of rec. root is 12 grs + 3ss

This article is purgative & dras-
 tic acts on the middle part of the canal
 - requires a medium time & in large doses
 leaves the bowels in a bad condition.

Cucumis Colocynthis

Nat. ord. Cucurbitaceae

Native of the Levant
& cultivated in Europe

The fruit is the part employed under the name of Colocynthis - It is reduced to a fine powder. I believe the pulp only ought to be used, but the whole is used. It is found in the shops in powder. Water alc. & ether dissolve its active principles

E. & V. say it is very irritant, externally or internally - they say it is a powerful cathartic - purgative or drastic - less hydragogue than most other cathartics equally drastic (I can't say I ever saw a hydrag. spec. alia from it) It acts on the colon - takes a medium time - alone it is more or less disagreeable, but is agreeable in combination. It is a valuable article - when a compound cath. is used, it makes a strong impression. It is irritant

E. & V. say it produces amenorrhoea. I have never had any such effects from it

Enteritis - recd. by E & V. - but a more careful
 the life within is not wanted - a deobst. opera-
 tion is required for which Calomel is best
 perhaps ⁱⁿ any them. enteritis it may answer
 a c. h. is indicated - but in this case a dis-
 section is almost always attendant & even in
 the Calomel best

Prophyl - E & V - but I do not believe the
 article by Asch. & therefore it can seldom be proper

Elatarium

Amorcan *Elatarium* of *Linnaeus*, *Escballium*
Elatarium of *Richers* — Called also
Cucumis agrestis & *C. alpinus* Squirting

Cucumber.

It is a perennial plant
 growing spontaneously in the South of Europe
 Son ght to be cultivated among us

The active principle resides in the
 juice around the seeds — It is prepared by —
 As found in the shops it is —

The dried juice of the fruit
 blanned without any preparation is best
 As prepared above it contains a peculiar
 proc. prin. called Elatine. An alcohol-
 ic tinct. may be impregnated

Elatine is a green

Elatarium is often mixed with
 starch. It is injured by exposure to the light
 yet this our apothecaries do not know. It is
 very expensive

The juice of the pepper is irritant to the skin
Elatarium undoubtedly possesses great deobstr.
 powers, but they do not begin to operate

much like purging comes on - then they are powerful. Its natural operation is drastic not prostatic nor lucative. It is more hydragogue than any other article. Although so drastic, it leaves the bowels in a good condition. It may be given in cases of extreme debility. It is speedy, in single large doses, - less speedy in small doses. It is irritant - diuretic in doses short of the purging point - deobstruent.

Upon the whole, Elaterrum is the most valuable cath. in the Nat Med. Calomel & the neutral salts excepted.

Diseases - Coprostaticis - sh^d not think it good. Paralytica

Stoma - sh^d not think it good

Atonic ac. Rheum. - it acts as a resolvent deobst. but generally is proper only in the early stages

Opium will prevent its purging

Sub ac. Rheum. - early stages

Rheumatiz in its various forms - both that called "crick in the back" & sciatic

-ica - a cath. of elat. is very beneficial
 Buchuina Indica - gave a cath. followed by
 an internal use of Conium & ~~iodine~~ iodine
 Chronic & obstinate ulcers of the legs - pur-
 ging with Elat. is very beneficial - they
 were formerly cured by rom. with turp. resin.
 Chorea - a valuable remedy - by acting on
 the system at large
 Param. obstruct. - isopurine & in healthy subjects
 Hydrops cellularis - H.

in these diseases

It is of more importance than any other.

Begin^g early in the morning with doses of $\frac{1}{6}$
 $\frac{1}{2}$ or $\frac{1}{4}$ gr. acc. to the strength of the article
 once an hour or once in 2 hours - Continue
 till catharsis actually commences & then
 suspend. The catharsis usually begins in
 about 5 or 6 hours. It is preferable not to
 have it commence under 10 or 12^h hours
 The first discharge will be fecal & then
 will follow those that are purely hydra-
 gogue. Most of the books recd. in full

* Large dose, - giving all you would give at once. But this is apt to produce nausea & vomica, disto as so. Give it in regular dose, also to get its drast. effect

If the evacuations are rapid & appear to relieve the part (which is nearly the case) give a dose of opium, generally not less than 10 grs, acc. to the susceptibility of the part. If the part is at all feeble you sh^d be about him at the time of the operation & the article after the use of the article treat with stimulants. It may be necessary to repeat the Euterium, for removing the fluid does not cure the disease, & the fluid may return. Euterium removes the dropsical fluid better than any other article I know of.

In cases of Concussion followe^d by stupor or coma about a week or two after the accident. I have known Euterium managed as in dropsy to be most effectual acting not merely by its a.c. but its drast. power.

Claterrum is better by itself than combined with any other article. Some conjoin calomel, but it is better without.

E. & T. recd. it in doses of ʒss. not to exceed ʒss - but with such claterrum as I have had, a man wd not stay long enough in the world to repeat the dose.

The *Momordica balsamina* has been said to possess the same power as claterrum, but not truly. It grows in our garden. The juice of the unripe fruit is said to be emmenagogue & styptic. This is worth enquiring into.

Luffa operculata

Allied to *Clatrinum* - Nat. ord. Cucurbitaceae
 Its natural habitat is Guiana. It is found
 abundantly in the W. I. & along the shores of
 the Gulf of Mexico.

Dr Hancock calls it *Coscin*? It is also called
 "bitter cucumber", but the cucumis
 colloc. for bears the name. It is the *Mor-*
mordica operculata of Linnaeus & is similar
 to the common cucumber.

I derive my knowledge of this article from
 Dr Hancock

In the fruit is a web-like substance
 or reticulum which possesses the medicinal
 powers & Dr H. says "it is a most active
 cathartic in nature" - says "it acts on the
 skin, kidneys & intestines". Acc. to his account
 it is an effectual Diuretic, acting on the
 whole sec. & abs. syst. I do not think it a
tonic directly

(Dr H. says that 1 gr. of the reticu-
 lum is a dose. This is undoubtedly too
 large & acc. to his account 1 gr. is suf-

sufficient to produce the effect of the common dose of Euterium

Dr H. prescribed it in infusion, but says was obliged to add chlorid of sodium to preserve it. Would it not be better to make a powder of the reticulum? He

He says it is better to have it a long time in operation. It seems its operation is precisely like that of Euterium & it is best given in small doses at regular intervals

This article is Frustic - may be managed as a pergative, but more, in laxat. or evac. not i. Full doses may vomit - small ones do not.

Purely hydrag. - Middle part of can. Med. - time in small doses. Makes a strong impression. It is irritant & deobst. Short of purging power it is diuretic. It is emmenag. in full doses. It is resolvent.

Diseases - recc. in Dyspepsia - Colic. rhach.

as an emen. Dr H. says it is an effic. article. Paralyse Crac. (enlargement of the spleen) Dr H. says, in his own case it proved effic. as an emen. It affected the stomach.

Hydrops Cellulosus (or as he calls it general dropsy) Dr Ha says he has cured perfectly by it - recommends it in the early stage. He says mercury is a most efficient article in dropsy & so says Dr Tully. H. Thoracis & Abdominis (ascites) - In the latter it is necessary to repeat the article in some cases. Dr H. has found it necessary to re-ligate & repeat it.

Upon the whole it appears that this article has the same medicinal properties as Elettarium. It is not liable to lose its strength like Elettarium.

The Cousia or L. operculata is finally, is cheap & precisely equivalent.

Sulphur

Purgative in a full dose. It is diaphoretic in ~~some~~ phleg. & not materially atonic cases, regularly, & I am apt to think it is so indirectly. It is irritant but not tonic or stimulant. It is undoubtedly inappropriate in phlogistic & truly atonic cases.

Dr Duncan thinks it taken into the circulation, from the sulphureous smell &c. of persons who take it. Dr Tully thinks it digested & says the smell is that of Hydroxylic acid.

Dr Duncan thinks it better combined with some saline cathartic. Dr T. thinks this not necessary. In combination he ^{thinks} its irritant effects will be obviated.

Sulphur injudiciously administered & persisted on will produce rheumatism, paraplegia & effects precisely analogous to those of mercury. I have seen swelling of the joints & loss of the use of the lower extremities.

Sulphur in full doses is a purgative - it may be managed as an ecoprotic. It is Coprogogue. Act in the whole tract. It is slow. In a full dose & under a bad condition of the system it is irritated in its operation, & leaves the bowels in a bad condition. It makes a considerable impression. It is irritant & decidedly deobstruent - being resolvent & (I have known subacute rheum. cured by it) diaph. emmen. & expectorant.
Diseases.

Practica Merica - I w^d regulate its use acc. to pretty much the same rules as calves

Chronic Coughs - recd. by Duncan

Chronic coughs - it has been used in form of "balsam of sulphur". It is good in some coughs

Dyspnoea rec. & Asthma. hum. - Duncan - probably is good in the interval

Disguised gout of Guller

Rheumatism in chron. rheum. - have never tried it but it probably is good.

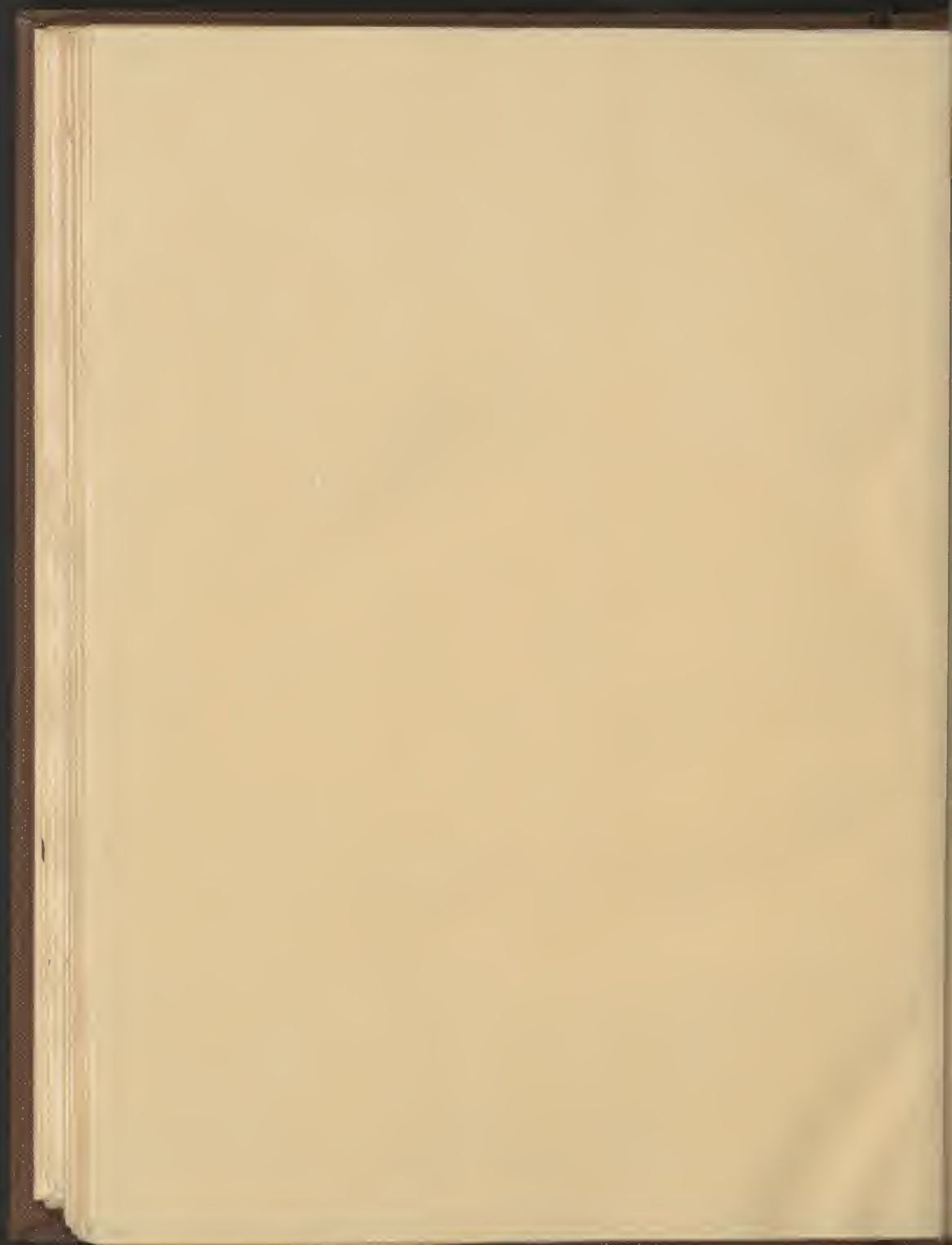
Scabies & various cutaneous eruptions

MS
B
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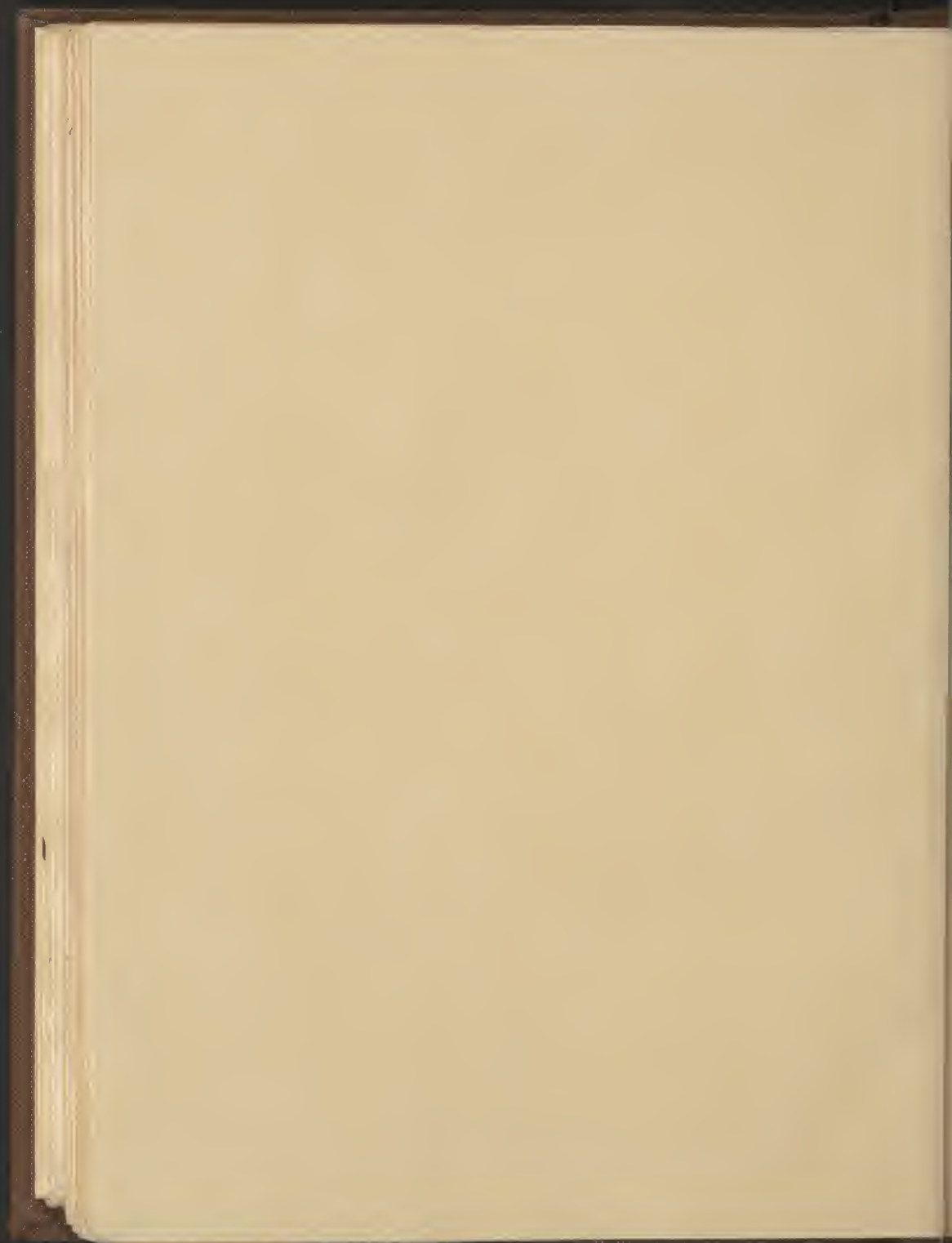
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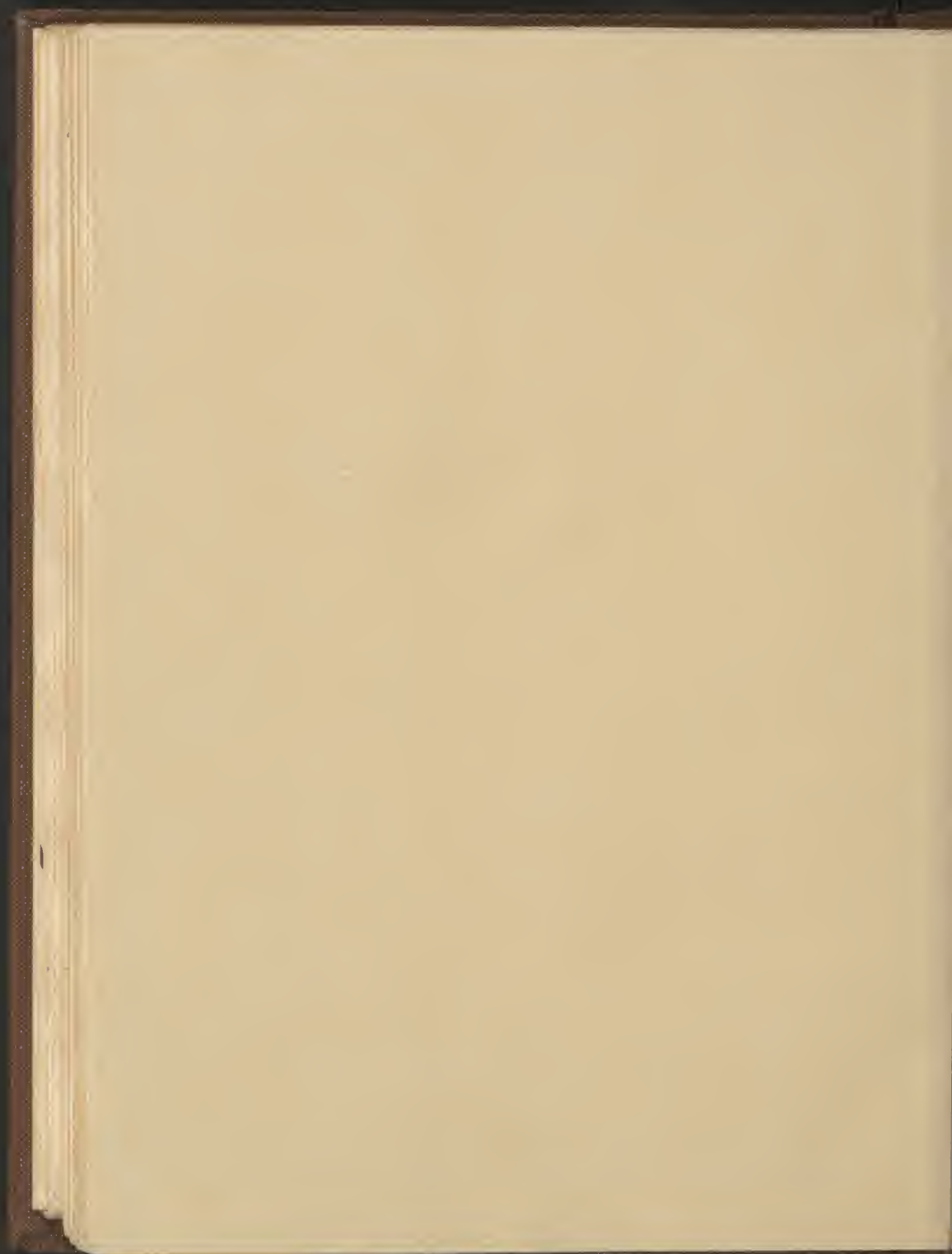
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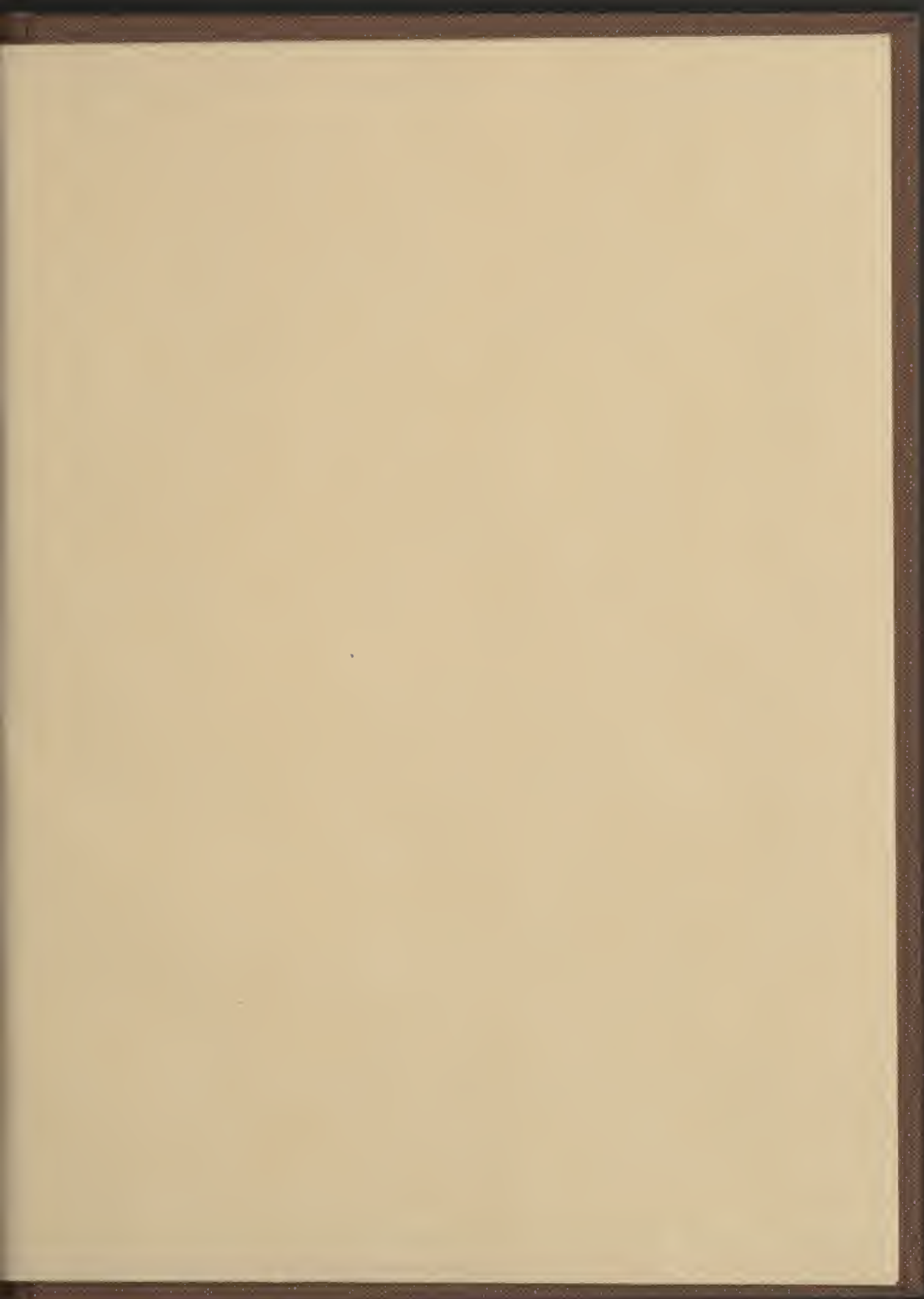


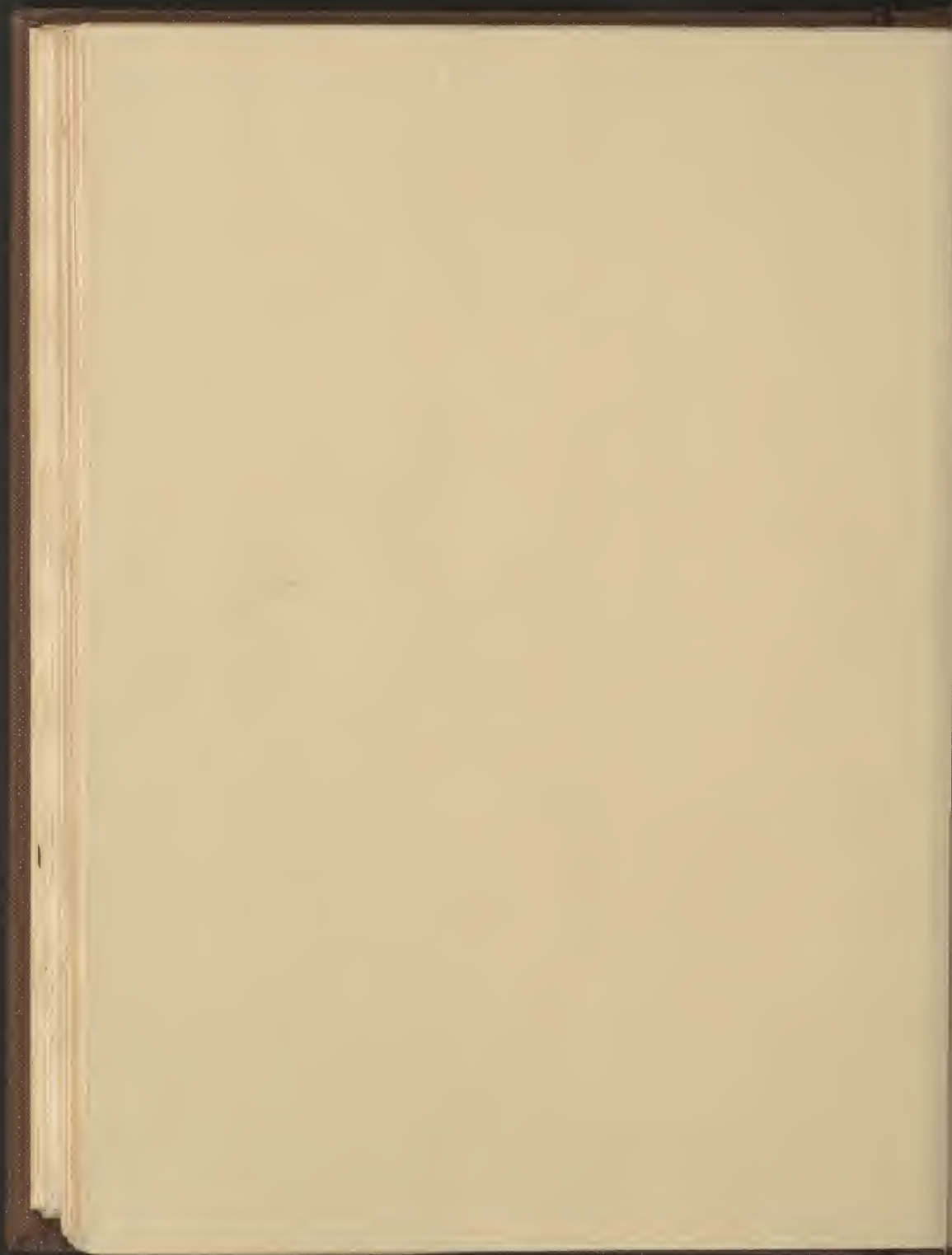


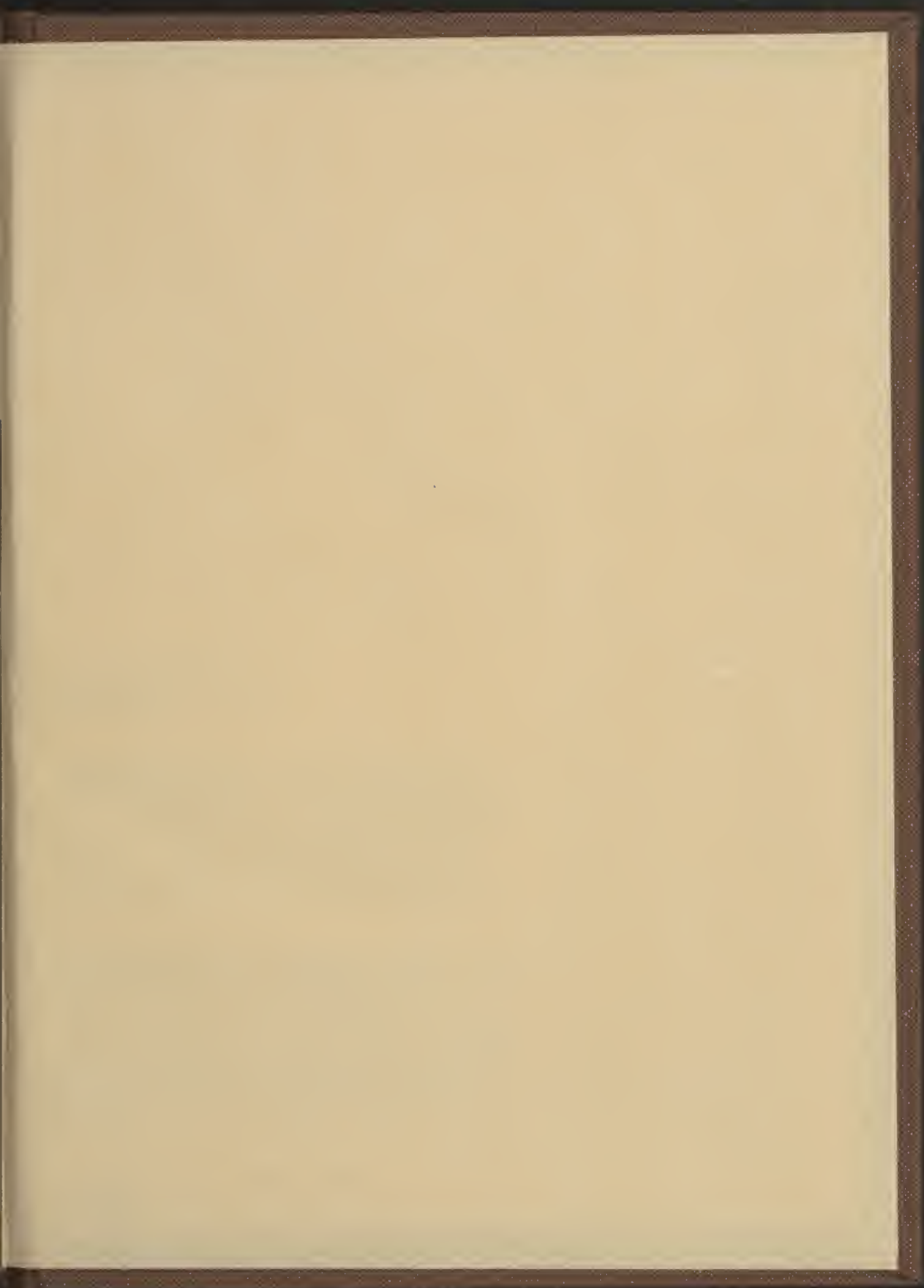


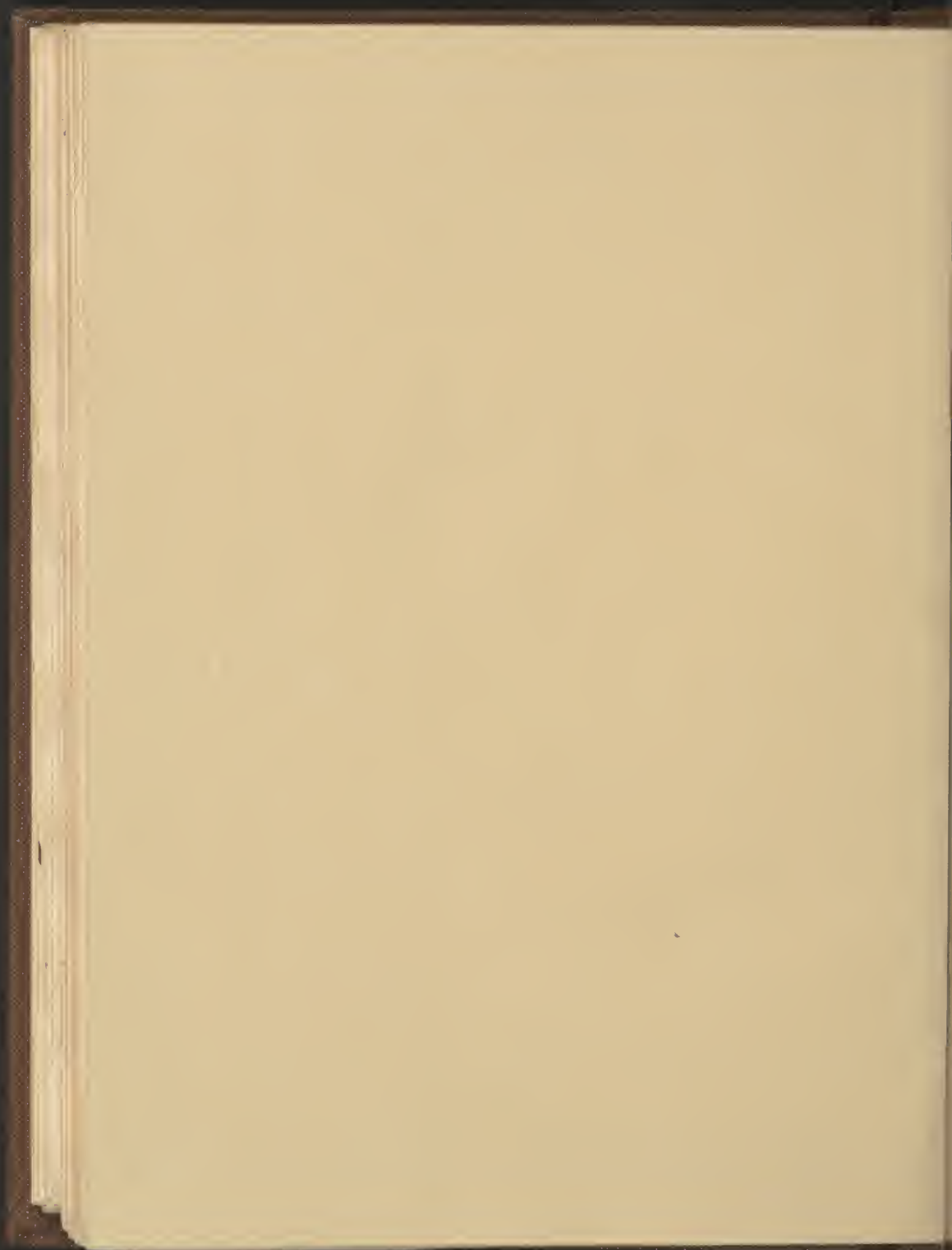












Ives. Tully. Vol. 6.
National Library of Medicine
Bethesda, MD

Condition On Receipt: The half leather and decorated paper binding was extremely dirty, worn, abraded, deteriorated and powdery, particularly at the corners, edges, endcaps and joints. The joints and internal hinges were partially broken. The sewing was loose in places, and several of the pages were detached from the text block. The pages were torn, dirty, discolored, acidic, weak and brittle. The manuscript inks present were acidic and varied in intensity.

Treatment: The volume was collated and disbound. The inks were tested for solubility. The head, tail and pages were dry cleaned and washed and then buffered (deacidified) with magnesium bicarbonate solution. Tears were mended and folds guarded where necessary with Japanese paper and rice starch paste. The volume was sewn on linen tapes with linen thread. Windsor handmade paper ends with a linen hinge were attached. The volume was case bound in full cloth. Title information and lines were stamped in gold foil onto the spine.

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April 1986
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